STATE OF CALIFORNIA
The Resources Agency

Department of Water Resources

BULLETIN No. 130-68

HYDROLOGIC DATA: 1968

Volume I: NORTH COASTAL AREA

FEBRUARY 1970

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
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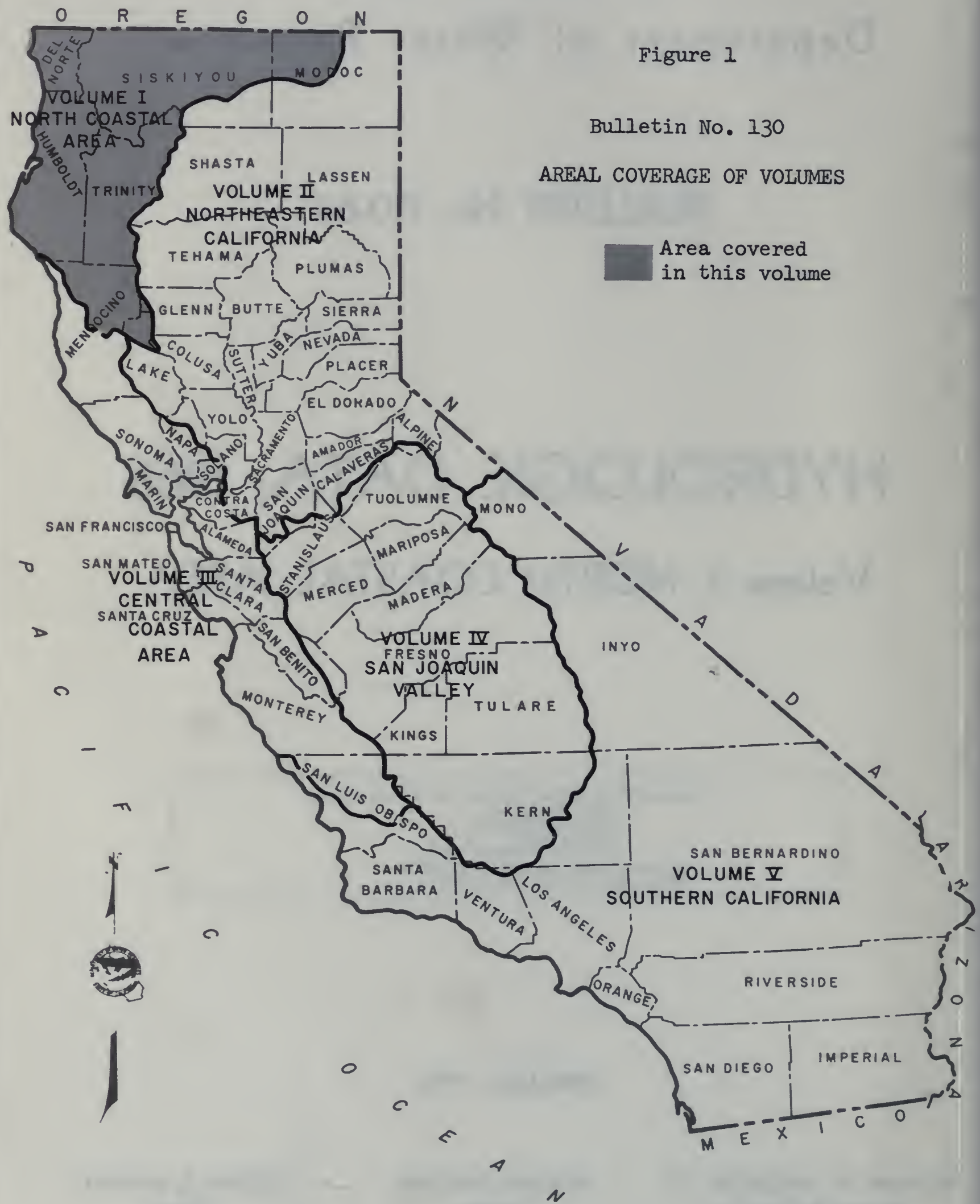

Figure 1

Bulletin No. 130

AREAL COVERAGE OF VOLUMES

Area covered in this volume

FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy needs of these agencies for data on the quality and quantity of water in the State. Bulletin No. 130-68 presents accurate, comprehensive, and timely hydrologic data which are prerequisites for effective planning, design, construction, and operation of water facilities.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.

William R. Gianelli

William R. Gianelli, Director
Department of Water Resources
The Resources Agency
State of California
December 19, 1969

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT	
Inch (in.)	2.54	Centimeters
Foot (ft.)	0.3048	Meter
Mile (mi.)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal.)	3.785	Liters
Acre-foot (acre-ft.)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liter per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute
Part per million (ppm)	Milligram per liter (mg/l)	
Part per billion (ppb)	Microgram per liter (ug/l)	
Part per trillion (ppt)	Nanogram per liter (ng/l)	
Equivalent per million (epm)	Milliequivalent per liter (me/l)	

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The Resources Agency
DEPARTMENT OF WATER RESOURCES

RONALD REAGAN, Governor
NORMAN B. LIVERMORE, JR., Secretary for Resources
WILLIAM R. GIANELLI, Director, Department of Water Resources
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Reviewed and coordinated by
Division of Resources Development
Program Formulation and Coordination Office
Water Resources Evaluation Section

ABSTRACT

The report contains tables showing data on climate, surface water flow, ground water levels, and surface and ground water quality in the North Coastal area during the 1967-68 water year. Figures show the location of climatological stations, surface water measurement stations, surface water sampling stations, and ground water basins.

ACKNOWLEDGMENTS

In the preparation of this report, valuable assistance and contributions were received from several public agencies and many private cooperators. The cooperation of the U. S. Weather Bureau and the U. S. Geological Survey was particularly helpful and is gratefully appreciated.

A special note of thanks is extended to the many loyal and dedicated weather observers whose unselfish efforts have contributed immeasurably to our knowledge of historical weather conditions in Northern California.

APPENDIX A

CLIMATOLOGICAL DATA

INTRODUCTION

This appendix summarizes monthly precipitation, temperature, wind movement, and evaporation data for the North Coastal area from July 1, 1967, to September 30, 1968. Storage gage data are reported as annual precipitation. The appendix contains weather data collected by cooperating agencies and local observers at 122 stations.

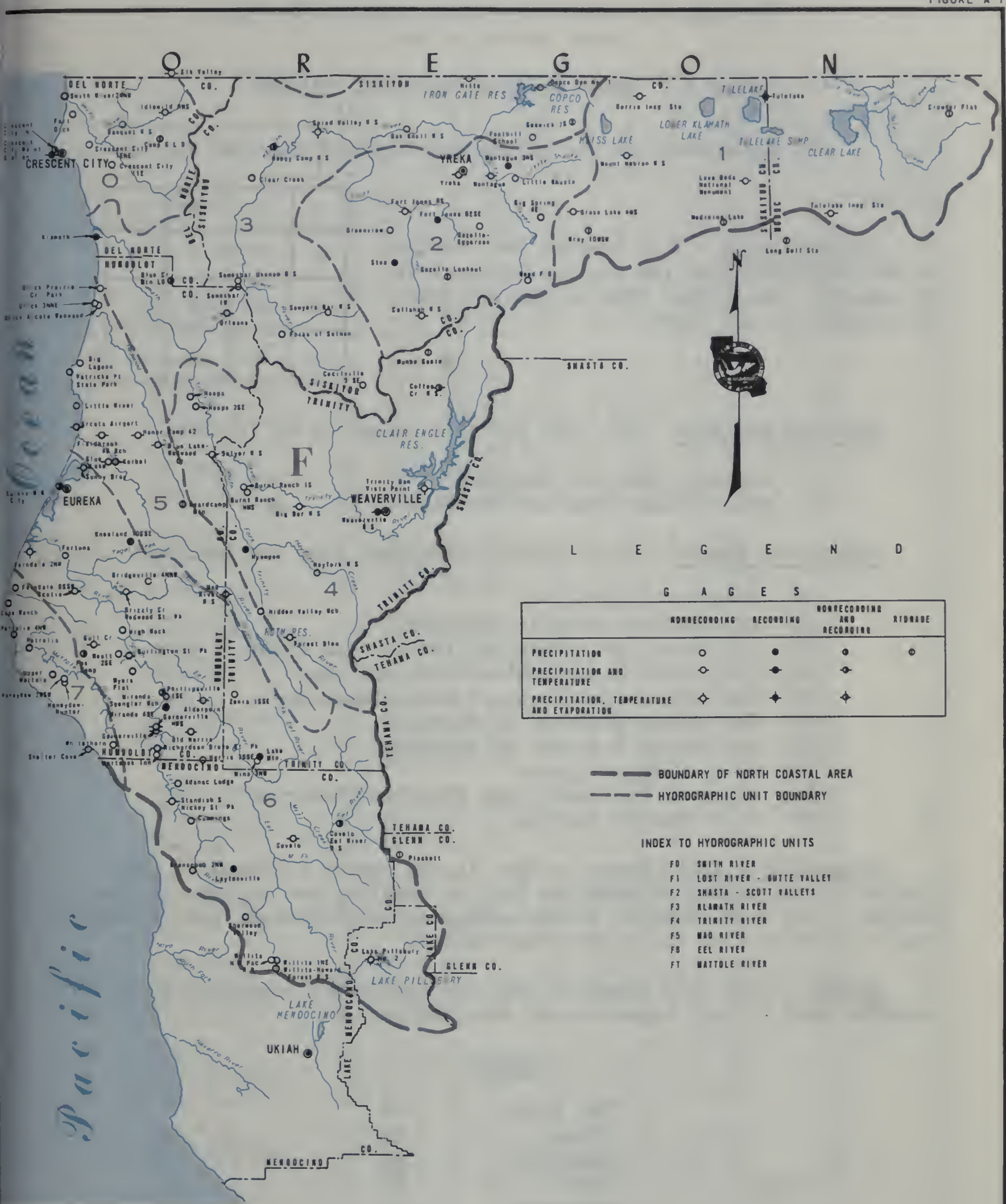
Daily climatologic data, together with local conditions and qualifying remarks, are available in the files of the Department of Water Resources.

To insure accuracy, stations are normally inspected either semi-annually or annually to see that the equipment is properly maintained and that observations are generally taken in accordance with U. S. Weather Bureau standards.

Each station in this appendix has been assigned an identification number. The letter and first digit denote the drainage basin as shown below. The remaining digits denote the alphabetical sequence of the station.

<u>North Coastal Area</u>

F0 - Smith River
F1 - Lost River-Butte Valley
F2 - Shasta-Scott Valleys
F3 - Klamath River
F4 - Trinity River
F5 - Mad River
F6 - Eel River
F7 - Mattole River



CLIMATOLOGICAL OBSERVATION STATIONS

TABLE A-1 INDEX OF CLIMATOLOGICAL STATIONS

An explanation of the column headings and the code symbols follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

40-Acre Tract - This denotes the location of the station within the section in which it is located. The letter code is derived from the diagram to the right.

Base and Meridian - The code for this column is as follows:

H - Humboldt Base and Meridian
M - Mount Diablo Base and Meridian

Cooperator Number - This number is assigned from the following list:

000 Private Cooperators
006 Northwestern Pacific Railroad
804 California Department of Beaches and Parks
805 California Department of Fish and Game
806 California Department of Water Resources
808 California Division of Forestry
809 California Division of Highways
900 U. S. Weather Bureau
901 Corps of Engineers, San Francisco District
905 U. S. Forest Service

Cooperator's Index Number - This is the number assigned to the station by the agency responsible for, or handling the records of, the station. The U. S. Weather Bureau number is only shown in this column when it differs from the alpha order number.

County - This is a standard code for California counties; those counties used in this appendix are shown below:

County	
Del Norte	08
Glenn	11
Humboldt	12
Lake	17
Mendocino	23
Modoc	25
Siskiyou	47
Trinity	53

TABLE A-1

INDEX OF CLIMATOLOGICAL STATIONS FOR 1967-68

NORTH COASTAL AREA

Station Number	Station Name	Elevation (In Feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude °	Latitude '	Latitude "	Longitude °	Longitude '	Longitude "	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
F6 0018	ADANAC LODGE	1100	SEC 14	T23N	R17W	H	M	39	50	48	123	42	00	000		1950			23
F6 0088	ALDERPOINT	435	SEC 27	T03S	R05E		H	40	11	00	123	36	00	900		1940			12
F5 0253	ARCATA A P	217	SEC 19	T07N	R01E	Q	H	40	58	18	124	05	24	000		1957			12
F3 0715	BESWICK 7 S	6140	SEC 33	T47N	R03W		M	41	52	00	122	14	00	900		1952			47
F4 0738	BIG BAR RANGER STA	1270	SEC 05	T33N	R12W		M	40	44	54	123	14	42	900		1943			53
F5 0764	BIG LAGOON	100	SEC 18	T09N	R01E	R	H	41	09	36	124	05	54	000	PN2125	1947			12
F2 0786-01	BIG SPRINGS 4 E	2955	SEC 05	T43N	R04W	R	M	41	35	30	122	19	42	000		1960			47
F3 0899	BLUE CREEK MTN LO	4870	SEC 30	T12N	R04E	R	H	41	23	42	123	45	54	900		1960			08
F5 0901	BLUE LAKE	105	SEC 30	T06N	R02E	A	H	40	52	54	123	59	12	000		1951			12
F4 0929	BOARDCAMP MTN	4500	SEC 26	T04N	R04E		H	40	42	12	123	42	00	000		1963			12
F6 1046	BRANSCOMB 2 NW	1480	SEC 09	T21N	R16W	M	M	39	41	12	123	39	36	900		1959			23
F1 1050	BRAY 10 WSW	5759	SEC 24	T43N	R03W		M	41	34	00	122	08	00	900		1951			47
F6 1080	BRIDGEVILLE 4 NNW	2050	SEC 27	T02N	R03E		H	40	31	00	123	49	00	900		1954			12
F6 1181	BULL CREEK	410	SEC 36	T01S	R01E	H	H	40	21	00	124	06	30	000		1960			12
F6 1210	BURLINGTON ST PARK	200	SEC 12	T02S	R02E	D	H	40	18	30	123	54	24	000		1950			12
F4 1215	BURNT RANCH 1S	2150	SEC 23	T05N	R06E	E	H	40	47	48	123	28	48	900		1945			53
F4 1215-15	BURNT RANCH HMS	1500	SEC 14	T05N	R06E	F	H	40	48	30	123	28	30	000		1963			53
F2 1316	CALLAHAN RANGER STA	3136	SEC 21	T40N	R08W		M	41	18	00	122	48	00	900		1943			47
F0 1446	CAMP SIX LOOKOUT	3700	SEC 31	T17N	R03E	B	M	41	49	48	123	52	24	000		1963			08
F3 1606	CECILVILLE 5 SE	2980	SEC 12	T37N	R11W		M	41	06	00	123	03	00	900		1954			47
F3 1799	CLEAR CREEK	975	SEC 07	T15N	R07E	H	H	41	42	30	123	26	54	900		1959			47
F4 1886	COFFEE CREEK RS	2500	SEC 06	T37N	R07W		M	41	05		122	42		900		1960			53
F3 1990	COPCO DAM NO 1	2700	SEC 29	T48N	R04W	P	M	41	59	00	122	20	00	900		1928			47
F6 2081	COVELO	1385	SEC 12	T22N	R13W		M	39	47	00	123	15	00	900		1921			23
F6 2084	COVELO EEL RIVER RS	1514	SEC 28	T23N	R11W		M	39	50	00	123	05	00	900		1940			23
F0 2147	CRESCENT CITY 1 N	40	SEC 20	T16N	R01W		H	41	46	00	124	12	00	900		1885			08
F0 2148	CRESCENT CITY 7 ENE	120	SEC 08	T16N	R01E		H	41	48	00	124	05	00	900		1913			08
F0 2150	CRESCENT CITY HMS	50	SEC 20	T16N	R01W		H	41	46	00	124	12	00	900		1941			08
F0 2152	CRESCENT CITY 11 E	360	SEC 30	T16N	R02E	B	H	41	45	18	123	59	30	000		1947			08
F1 2188	CROWDER FLAT	5175	SEC 20	T47N	R11E	K	M	41	53	00	120	44	00	000	PN2188	1958			25
F6 2218	CUMMINGS	1270	SEC 21	T23N	R16W		M	39	50	00	123	38	00	900		1927			23
F1 2480	DORRIS INSPECT STA	4240	SEC 36	T48N	R01W	R	M	41	57	18	121	54	30	000		1959			47
F0 2749	ELK VALLEY	1711	SEC 34	T19N	R04E		H	42	00	00	123	43	00	900		1938			08
F2 2899	ETNA	2912	SEC 28	T42N	R09W		M	41	28	00	122	54	00	900		1935			47
F6 2910	EUREKA WB CITY	43	SEC 22	T05N	R01W		H	40	48		124	10		900		1878			12
F7 3025	FERNDALE 8 SSW	1445	SEC 06	T01N	R02W	P	H	40	29	30	124	20	24	900		1959			12
F6 3030	FERNDALE 2NW	10	SEC 34	T03N	R02W	K	H	40	35	54	124	16	36	900		1963			12
F5 3041	FIELDBROOK 4 D RCH	285	SEC 36	T07N	R01E	P	H	40	56	36	124	01	06	000		1956			12
F3 3122	FOOTHILL SCHOOL	2960	SEC 25	T46N	R05W	F	M	41	48	42	122	22	18	000		1962			47
F4 3130	FOREST GLEN	2340	SEC 22	T01S	R08E		H	40	23	00	123	20	00	900		1930			53
F3 3151	FORKS OF SALMON	1270	SEC 24	T10N	R07E	A	H	41	15	12	123	19	00	900		1959			47
F0 3173	FORT DICK	46	SEC 14	T17N	R01W		H	41	52	00	124	09	00	900		1951			08
F2 3176	FORT JONES 6 ESE	3324	SEC 12	T43N	R08W		M	41	35	00	122	43	00	900		1941			47
F2 3182	FORT JONES RANGER STA	2720	SEC 02	T43N	R09W	C	M	41	36	00	122	51	00	900		1936			47
F6 3194	FORTUNA	60	SEC 35	T03N	R01W	Q	H	40	36	00	124	09	00	000		1955			12
F6 3320	GARBERVILLE	340	SEC 24	T04S	R03E		H	40	06	00	123	48	00	900		1938			12
F6 3322-01	GARBERVILLE HMS	540	SEC 24	T04S	R03E	G	H	40	06	00	123	47	40	809		1935			12
F0 3357	GASQUET RANGER STA	384	SEC 21	T17N	R02E	N	H	41	52	00	123	58	00	900		1940			08
F2 3361-03	GAZELLE - EPPERSON	2760	SEC 17	T43N	R06W	J	M	41	34	18	122	33	12	000		1950			47
F2 3363	GAZELLE LOOKOUT	5200	SEC 08	T41N	R07W	J	M	41	24	30	122	40	30	000		1956			47
F1 3564	GRASS LAKE HMS	5080	SEC 28	T44N	R03W	G	M	41	37	48	122	11	30	900		1954	1967		47
F2 3614	GREENVIEW	2818	SEC 29	T43N	R09W		M	41	33	00	122	54	00	900		1943			47
F6 3647	GRIZZLY CRK REDWOOD	500	SEC 11	T01N	R02E		H	40	29	00	123	47	00	900		1963			12
F3 3761	HAPPY CAMP RANGER STA	1090	SEC 11	T16N	R07E		H	41	48	00	123	23	00	900		1914			47
F6 3785	HARRIS 7 SSE	1910	SEC 27	T05S	R05E	N	H	39	59	24	123	36	42	000		1953			23
F6 3810	HARTSOOK INN	470	SEC 24	T05S	R03E	D	H	40	00	48	123	47	30	000		1957			12
F4 3859	HAYFORK RANGER STA	2340	SEC 12	T31N	R12W	R	M	40	33	00	123	10	00	900		1915			53
F4 3949	HIDDEN VALLEY RANCH	1978	SEC 32	T01N	R07E	M	H	40	24	54	123	24	30	000		1959	1967		53
F6 3956	HIGH ROCK	900	SEC 15	T01S	R02E	K	H	40	22	48	123	56	30	808		1960			12
F3 3987	HILTS	2900	SEC 23	T48N	R07W		M	42	00	00	122	38	00	900		1939			47
F7 4074	HONEYDEW 2 WSW	380	SEC 02	T03S	R01W	C	H	40	14	18	124	09	00	900		1953			12
F7 4074-01	HONEYDEW HUNTER	380	SEC 02	T03S	R01W	M	H	40	14	18	124	09	06	000		1955			12
F5 4077	HONOR CAMP 42	1875	SEC 31	T07N	R03E	K	H	40	56	48	123	52	42	000		1956			12
F4 4082	HOOPA	350	SEC 25	T08N	R04E		H	41	03	00	123	40	00	900		1941			12
F4 4084	HOOPA 2 SE	315	SEC 31	T08N	R05E		H	41	02	00	123	39	00	900		1954			12
F4 4191	HYAMPOM	1260	SEC 25	T03N	R06E		H	40	37	00	123	28	00	900		1940			53
F0 4202	IDLEWILD HMS	1250	SEC 06	T17N	R04E	D	H	41	54	00	123	46	12	900		1946			08
F3 4577	KLAMATH	25	SEC 15	T13N	R01E		H	41	31	00	124	02	00	900		1941			08
F6 4587	KNEELAND 10 SSE	2356	SEC 13	T03N	R02E		H	40	38	00	123	54	00	900		1954			12
F5 4602	KORBEL	150	SEC 28	T06N	R02E	P	H	40	52	00	123	57	30	900		1937			12

TABLE A-1 (Continued)

INDEX OF CLIMATOLOGICAL STATIONS FOR 1967-68

NORTH COASTAL AREA

Station Number	Station Name	Elevation (In Feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude °	Latitude '	Latitude "	Longitude °	Longitude '	Longitude "	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
F6 4690	LAKE MOUNTAIN		SEC 21	T05S	R07E		H	40	01	00	123	24	00	900		1939			53
F6 4698	LAKE PILLSBURY NO 2	1740	SEC 10	T18N	R10W		M	39	25		122	59		900		1964			17
F1 4838	LAVA BEDS NAT MON	4770	SEC 28	T45N	R04E	H	M	41	43	48	121	30	30	900		1940		06	47
F6 4851	LAYTONVILLE	1640	SEC 01	T21N	R15W		M	39	42	00	123	29	00	900		1940			23
F5 4982	LITTLE RIVER	150	SEC 31	T08N	R01E	P	H	41	01	54	124	06	36	000		1949			12
F2 4984-02	LITTLE SHASTA	2725	SEC 26	T45N	R05W	C	M	41	43	00	122	23	00	000		1960			47
F1 5081-01	LONG BELL STATION	4375	SEC 20	T42N	R05E	B	M	41	28	00	121	25	00	000		1958			25
F5 5244	MAD RIVER RANGER STA	2775	SEC 17	T01N	R06E		H	40	27	00	123	32	00	900		1943			53
F1 5505	MEDICINE LAKE	6660	SEC 10	T43N	R03E		M	41	35	00	121	37	00	900		1946			47
F6 5676	MINA 3 NW	2875	SEC 28	T05S	R07E	A	H	40	00	06	123	23	30	000		1927			53
F6 5711	MIRANDA 4 SE	263	SEC 30	T03S	R04E		H	40	11	00	123	47	00	900		1964			12
F2 5783	MONTAGUE	2500	SEC 27	T45N	R06W	Q	M	41	43	42	122	31	36	000	045783	1888		05	47
F2 5785	MONTAGUE 3NE	2640	SEC 18	T45N	R05W		M	41	45	00	122	28	00	900		1948			47
F1 5941	MOUNT HEBRON R S	4250	SEC 32	T46N	R01W		M	41	47	00	122	00	00	900		1942			47
F4 6032	MUMBO BASIN	5700	SEC 35	T39N	R06W	E	M	41	12	00	122	32	00	900		1946			53
F6 6050	MYERS FLAT	190	SEC 30	T02S	R03E		H	40	15	40	123	52	00	000		1950			12
F3 6328	OAK KNOLL RANGER STA	1963	SEC 12	T46N	R09W		M	41	50	00	122	51	00	900		1942			47
F6 6408	OLD HARRIS	2225	SEC 30	T04S	R05E	G	H	40	05	00	123	39	42	000		1956			12
F5 6497-01	ORICK 3 NNE	50	SEC 22	T11N	R01E	K	H	41	19	24	124	02	30	000		1950			12
F5 6497-02	ORICK ARCATA REDWOOD	75	SEC 22	T11N	R01E	K	H	41	19	24	124	02	36	000		1954			12
F5 6498	ORICK PRAIRIE CREEK	161	SEC 02	T11N	R01E		H	41	22	00	124	01	00	900		1937			12
F3 6508	ORLEANS	403	SEC 31	T11N	R06E		H	41	18	00	123	32	00	900		1885			12
F5 6745	PATRICKS PT ST PARK	250	SEC 26	T09N	R01W	L	H	41	08	12	124	09	00	804		1947			12
F7 6835-01	PETROLIA	175	SEC 03	T02S	R02W	L	H	40	19	30	124	16	48	000		1958			12
F7 6835-02	PETROLIA 4 NW	900	SEC 19	T01S	R02W	D	H	40	22	24	124	18	30	000		1953			12
F6 6851-15	PHILLIPSVILLE 1SE	300	SEC 19	T03S	R04E	B	M	40	11	42	123	46	00	000		1963			12
F6 6976	PLASKETT	6580	SEC 27	T22N	R09W	A	M	39	44	12	122	51	24	000		1960			11
F6 7404	RICHARDSON GROVE	500	SEC 13	T05S	R03E		H	40	02		123	47		900		1961			12
F4 7698	SALYER RANGER STA	623	SEC 14	T06N	R05E		H	40	53	00	123	35	00	900		1931			53
F3 8025	SAWYERS BAR R S	2169	SEC 20	T40N	R11W		M	41	18	00	123	08	00	900		1931			47
F6 8045	SCOTIA	139	SEC 07	T01N	R01E		H	40	29	00	124	06	00	900		1926			12
F3 8083-01	SEIAD VALLEY R S	1371	SEC 11	T46N	R12W	R	M	41	50	36	123	11	42	905		1953			47
F7 8162	SHELTER COVE	55	SEC 16	T05S	R01E		H	40	02		124	04		900		1959			12
F6 8163	SHERWOOD VALLEY	2170	SEC 32	T20N	R14W	F	M	39	32	36	123	26	30	901		1958			23
F0 8311-01	SMITH RIVER 2 WNW	195	SEC 21	T18N	R01W	A	H	41	56	30	124	10	42	000		1951			08
F3 8346	SOMESBAR 1W	520	SEC 04	T11N	R06E		H	41	23	00	123	29	00	900		1954	1967		12
F3 8346-05	SOMESBAR UKONOM R S	727	SEC 33	T12N	R06E		H	41	23	00	123	28	00	905	PN8919	1965			12
F6 8490	STANDISH HICKEY PARK	850	SEC 03	T23N	R17W	F	M	39	52	30	123	43	30	900		1949			23
F6 8668	SUNNY BRAE	70	SEC 33	T06N	R01E		H	40	52	00	124	04	00	000		1965			12
F4 9024	TRINITY DAM VISTA PT	2500	SEC 16	T34N	R08W		M	40	48	00	122	46	00	900		1959			53
F1 9053	TULELAKE	4035	SEC 06	T47N	R05E		M	41	58	00	121	28	00	900		1932			47
F1 9057	TULELAKE INSP STN	4408	SEC 31	T44N	R07E	F	M	41	36		121	12		000	049057	1953			25
F7 9177	UPPER MATTOLE	255	SEC 33	T02S	R01W		H	40	15	00	124	11	00	900		1886			12
F4 9490	WEAVERVILLE RANGER S	2050	SEC 12	T33N	R10W		M	40	44	00	122	56	00	900		1869			53
F2 9499	WEED FD	3593	SEC 01	T41N	R05W	M	M	41	26	00	122	23	00	900		1957			47
F6 9527	WEOTT 2SE	600	SEC 12	T02S	R02E	H	H	40	18	29	123	53	40	000		1961			12
F7 9654	WHITETHORN	1050	SEC 15	T05S	R02E	E	M	40	01	18	123	56	12	000		1962			12
F6 9684	WILLITS 1 NE	1350	SEC 17	T18N	R13W		M	39	25	00	123	21		900		1950			23
F6 9685	WILLITS HOWARD RS	1925	SEC 05	T17N	R13W		M	39	21	00	123	19	00	900		1935			23
F6 9686	WILLITS NW PAC RR	1365	SEC 18	T18N	R13W	L	M	39	24	12	123	21	06	006		1911		05	23
F2 9866	YREKA	2631	SEC 27	T45N	R07W		M	41	43	00	122	38	00	900		1871			47
F6 9940	ZENIA 1 SSE	2880	SEC 22	T03S	R06E	G	H	40	11	18	123	28	54	000		1950			53

TABLE A-2
PRECIPITATION DATA
NORTH COASTAL AREA

Station Name	Precipitation in Inches																
	Total July 1 To June 30	1967						1968									Total Oct. 1 To Sept. 30
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
RTH COASTAL AREA																	
ITH RIVER																	
CRESCENT CITY 1 N	49.00	.00	.01	1.61	4.82	5.88	5.56	11.64	8.12	6.15	.76	3.81	.64	.40	5.30	1.05	54.13
CRESCENT CITY 7 ENE	59.87	.00	.00	1.30	6.29	6.12	6.39	14.77	10.06	9.29	.95	4.12	.58	.14	4.75	1.41	64.87
CRESCENT CITY H.M.S.	---	0	0	1.38	4.74	5.53	5.56	---	---	---	.62	---	.54	.32	---	---	---
CRESCENT CITY 11 E	75.53	.00	.00	1.19	6.62	7.85	11.74	19.80	12.19	9.77	1.28	4.83	.26	.11	4.71	1.88	81.04
ELK VALLEY	58.34	.00	.00	.84	7.26	5.02	9.12	15.42	9.16	7.55	.75	3.14	.08	.03	3.72	1.15	62.40
FORT DICK 1 NNE	60.61	.00	T	1.64	6.97	6.07	6.97	14.80	10.14	8.35	1.06	3.89	.72	.45	6.05	1.19	66.66
GASQUET RANGER STATION	68.17	.00	.03	1.06	7.21	6.70	9.58	17.06	10.94	9.85	.91	4.52	.31	.09	4.18	1.57	72.92
IDLEWILD H.M.S.	61.64	.30	.00	1.41	6.59	5.29	10.37	15.28	9.29	7.97	1.15	3.88	.11	.06	3.44	1.32	64.75
SMITH RIVER 2 WNW	57.26	.00	T	1.64	6.41	6.01	7.33	13.62	9.97	6.53	1.12	3.93	.70	.45	6.72	1.85	64.64
ST RIVER - BUTTE VALLEY																	
DORRIS INSPECTION STA	6.81	.11	T	.15	.81	.37	1.04	.90	1.19	.40	.10	1.23	.51	.01	1.61	.19	8.36
GRASS LAKE H.M.S.	---	T	T	.23	.88	.61	RE										
LAVA BEDS NAT'L MON	8.48	.09	.03	.10	1.00	.70	.79	1.24	.69	.73	.20	2.08	.83	.02	2.33	.11	10.72
MOUNT HEBRON RANGER STA	7.54	.01	.00	.16	.88	.26	1.20	1.32	.88	.41	.19	1.40	.83	0	1.25	.08	8.70
TULELAKE	6.30	.03	.00	.02	.40	.12	.59	.43	1.05	.29	.10	1.85	1.42	0	1.98	.16	8.39
TULELAKE INSPECTION STA	9.25	.00	T	T	.79	.47	1.36	2.28	.73	.70	.12	2.17	.63	0	.73	.01	9.99
ASTA-SCOTT VALLEYS																	
BIG SPRINGS 4 E	5.56	.00	.00	.00	.54	.32	.74	.47	.73	.78	.45	.78	.75	.13	1.55	0	7.24
CALLAHAN RANGER STA	15.04	.09	.09	.21	2.70	1.19	2.48	2.61	2.44	1.50	.16	.67	.90	.23	.74	.23	15.85
ETNA	---	.02	.03	.15	2.36	1.32	4.63	---	4.44	1.70	.10	.29	.54	.04	.83	.22	---
FORT JONES 6 ESE	14.13	.05	.04	.19	1.51	1.29	3.05	3.06	2.79	.97	.06	.27	.85	0	---	.10	---
FORT JONES RANGER STA	18.92	.35	.33	.17	1.62	1.51	5.43	4.23	3.16	1.28	.07	.24	.53	0	.67	.13	18.87
GAZELLE EPPERSON	---	---	2.86	.03	---	---	---	---	---	---	.25	.67	.65	0	---	---	---
GREENVIEW	16.93	.00	.00	.08	1.66	1.58	3.67	3.73	2.90	1.60	0	.21	1.50	.07	.57	.05	17.54
LITTLE SHASTA	7.65	.00	.00	.35	.85	.40	.95	1.23	1.40	.82	.15	.90	.60	0	.92	.10	8.32
MONTAGUE	8.10	.00	.00	.22	1.67	.65	1.57	1.71	.59	.59	.18	.45	.47	.01	1.09	.21	9.19
MONTAGUE 3 NE	---	0	0	.23	1.19	.60	1.73	---	1.25	.75	.14	.62	.50	0	.81	---	---
WEED FIRE DEPARTMENT	14.26	.00	.03	.45	1.77	1.25	2.42	3.05	.82	1.89	.04	1.02	1.52	0	1.47	.15	15.40
YREKA	13.68	.04	T	.40	1.47	1.17	3.83	2.70	2.17	.98	.12	.27	.53	.02	1.73	.14	15.13
LAMATH RIVER																	
CECILVILLE 5 SE	30.42	.07	.43	.25	2.68	2.93	5.53	6.49	6.10	2.62	.50	2.03	.79	.30	2.90	.44	33.31
CLEAR CREEK	49.53	.00	.00	.53	4.30	4.33	9.03	13.47	8.89	6.20	.44	2.22	.12	0	2.99	.62	52.61
COPCO DAM NO. 1	12.44	T	.00	.27	1.24	1.19	2.64	1.93	2.07	1.43	.50	.82	.35	T	1.17	.17	13.51
FOOTHILL SCHOOL	9.45	.00	.00	.27	1.09	.58	1.21	1.48	1.76	1.00	.48	.94	.64	0	1.17	.06	10.41
FORKS OF SALMON	40.18	.00	.90	.34	3.94	3.85	7.48	10.59	7.11	3.98	.62	1.24	.13	0	1.68	.28	40.90
HAPPY CAMP RANGER STA	43.46	.00	.02	.42	3.40	3.88	8.02	12.50	7.62	5.19	.55	1.74	.12	0	2.66	.34	46.02
HILTS	16.16	.00	.04	.38	2.04	1.09	4.44	3.07	2.73	1.58	.08	.67	.04	0	1.08	.39	18.21
KLAMATH	56.88	.00	.00	1.26	6.33	6.53	5.56	14.37	8.81	7.64	1.17	4.79	.42	.20	5.50	1.50	62.82
OAK KNOLL RANGER STA	20.32	0	.11	.43	2.05	1.78	5.49	3.70	3.70	1.94	.20	.69	.23	0	.97	.37	21.12
ORLEANS	39.54	.00	.00	.47	2.26	4.74	7.20	10.26	6.91	4.84	.44	2.32	.10	0	3.46	.60	43.13
SAWYERS BAR RANGER STA	34.29	.00	.07	.38	3.25	3.14	6.64	7.88	8.25	2.95	.28	1.12	.33	0	2.20	.43	36.45
SEIAD VALLEY R S	33.87	.00	.02	.25	2.96	2.75	7.97	8.40	6.00	3.83	.19	1.45	.05	0	2.21	.49	36.30
SOMESBAR 1 W	---	.00	.03	.37	4.53	RE											
SOMESBAR-UNKONOM R S	47.19	.00	.06	.39	4.90	4.71	7.88	11.94	8.92	5.04	.39	2.78	.18	0	3.33	.58	50.65
RINITY RIVER																	
BIG BAR RANGER STATION	31.71	.00	.58	.20	2.17	3.04	6.36	8.40	6.87	2.79	.15	1.07	.08	0	1.66	.29	32.88
BURNT RANCH 1 S	41.83	.00	.04	.43	2.25	7.14	7.50	11.08	7.46	4.53	.40	.85	.15	0	2.30	.33	43.99
BURNT RANCH H.M.S.	32.84	.00	.00	.38	2.15	3.35	6.42	8.47	6.87	4.03	.37	.69	.11	0	2.30	.35	35.11
COFFEE CREEK R S	53.00	.60	.60	.10	2.60	5.70	9.30	16.10	9.60	4.50	.20	2.90	.80	0	---	---	---
FOREST GLEN	53.02	.00	T	.29	.64	5.58	10.80	16.61	10.59	6.48	.42	1.53	.08	0	2.50	.24	55.47
HAYFORK RANGER STATION	31.93	.00	.22	.20	1.71	3.20	5.66	10.95	6.41	3.02	.03	.48	.05	T	1.01	.16	32.68
HIDDEN VALLEY RANCH	---	.00	.00	.29	3.71	RE											
HOOPA	44.35	.00	.00	.45	4.13	4.80	8.27	10.97	7.49	4.78	.52	2.32	.62	.02	3.61	.39	47.92
HOOPA 2 SE	---	.00	T	.44	4.10	---	---	---	---	---	---	---	---	T	3.65	.40	---
HYAMPOM	---	.05	.05	.20	2.05	3.49	6.97	---	7.48	---	.15	1.33	.08	0	2.18	.33	---
SALYER RANGER STATION	36.87	.00	.03	.47	2.60	3.78	7.33	10.92	6.86	3.66	.36	.72	.14	0	3.19	.35	39.91
TRINITY DAM VISTA PT	34.00	.08	.15	.18	2.68	2.74	6.75	9.06	8.15	2.23	.05	1.75	.18	0	1.44	.18	35.21
WEAVERVILLE R S	35.49	.40	.43	.22	2.16	3.18	6.72	10.73	8.05	2.54	.09	.97	T	0	1.08	.18	35.70
AD RIVER																	
ARCATA AIRPORT	37.01	.01	.05	.89	3.21	5.07	5.44	9.68	4.37	4.78	.48	2.71	.32	.15	3.46	.84	40.51
BIG LAGOON	43.06	.00	.00	1.02	4.08	5.46	6.93	11.78	5.67	7.08	.48	2.96	.57	.09	4.42	.88	50.40
BLUE LAKE	34.08	.00	.00	.68	3.65	4.92	5.22	8.83	4.09	4.15	.44	2.03	.07	.13	2.93	.89	37.35
FIELDBROOK 4D RANCH	52.00	.00	.00	1.30	4.80	9.45	8.90	12.85	5.35	5.20	.65	3.05	.45	.10	5.10	1.10	57.00
HONOR CAMP 42	54.86	.00	.00	.88	5.51	6.71	9.36	11.75	7.88	6.86	1.64	3.61	.66	.17	6.02	1.28	61.45
KORBEL	38.28	.00	.00	.76	3.88	5.84	7.56	8.88	4.51	4.45	.44	1.96	0	.09	3.26	.94	41.81
LITTLE RIVER	37.34	T	T	2.35	3.34	5.80	5.05	7.80	3.30	5.60	.40	2.95	.75	RE			
MAD RIVER RANGER STA	51.51	.00	T	.40	4.51	4.72	9.84	14.12	8.71	7.13	.28	1.70	.10	0	2.46	.32	53.89
ORICK 3 NNE	45.89	0	0	1.04	4.87	5.53	6.46	12.42	4.84	6.11	.69	3.33	.60	.14	5.64	1.15	51.78
ORICK ARCATA REDWOOD	46.19	.00	.00	1.35	4.06	5.46	6.08	12.50	6.44	5.97	.56	3.33	.44	.13	5.35	1.06	51.38
ORICK PRAIRIE CRK PK	48.89	T	.00	1.23	4.91	5.12	6.53	12.82	6.43	6.90	.88	3.53	.54	.17	5.67	1.01	54.51
PATRICKS PT STATE PK	44.06	.00	.00	1.56	3.57	5.60	6.28	11.17	5.26	6.42	.71	2.75	.74	.18	4.53	1.09	49.31

TABLE A-2 (Continued)

PRECIPITATION DATA

NORTH COASTAL AREA

Station Name	Precipitation in Inches																
	Total July 1 To June 30	1967						1968									Total Oct. 1 To Sept. 3
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
NORTH COASTAL AREA																	
EEL RIVER																	
ADAMAC LODGE	60.88	.00	.00	.40	5.86	6.33	11.25	17.29	9.54	7.30	.37	2.43	.11	.00	5.10	.42	66.0
ALDERPOINT	44.52	.00	T	.51	3.72	4.97	8.31	12.13	7.41	5.59	.39	1.47	.02	T	4.22	.23	[illegible]
BRANSCOMB 2 NW	63.40	.00	T	.30	6.18	6.74	12.50	16.33	10.03	8.31	.30	2.63	.08	0	4.07	.57	67.[illegible]
BRIDGEVILLE 4 NNW	49.41	.00	.00	.84	4.54	6.10	7.12	12.13	8.00	7.58	.67	2.43	0	.07	3.91	.85	53.[illegible]
BULL CREEK	59.00	.00	.00	.62	4.60	5.91	10.84	18.84	7.80	8.56	.22	1.61	0	T	---	.26	---
BURLINGTON STATE PK	54.68	.00	.00	.67	3.74	5.59	9.10	17.97	7.38	8.10	.11	2.01	.01	0	---	.18	---
COVELO	35.14	.00	.00	.35	2.44	3.19	6.89	10.68	6.03	4.33	.09	1.10	.04	0	4.26	.08	39.[illegible]
COVELO EEL RIVER R S	32.87	0	0	.30	2.28	3.57	6.38	9.33	5.77	3.94	.08	1.22	0	0	---	---	---
CUMMINGS	61.48	.00	T	.30	5.80	6.14	11.21	17.42	9.92	7.98	.40	2.23	.08	0	4.61	.46	66.2
EUREKA W B CITY	28.22	.00	T	1.32	2.15	4.40	4.34	7.59	2.93	3.85	.40	1.04	.20	.04	1.98	.60	29.5
FERNDALE 2 NW	31.64	.02	.06	1.84	2.29	4.77	4.66	9.32	2.98	4.10	.62	.81	.17	.22	2.11	.35	32.[illegible]
FORTUNA	32.87	.00	.00	.86	2.91	5.24	5.00	9.15	3.79	4.24	.42	1.04	.22	0	2.26	.33	34.[illegible]
GARBERVILLE	46.66	.00	.00	.37	3.53	5.11	8.03	14.18	8.34	5.57	.01	1.52	T	0	1.89	.16	4[illegible].3
GARBERVILLE H.M.S.	53.76	0	0	.42	3.47	5.28	9.74	16.84	9.80	5.99	.23	1.79	.20	0	2.06	.50	55.9
GRIZZLY CRK REDWOOD	43.14	T	0	.50	3.36	5.25	7.88	12.52	4.46	7.04	.57	1.40	.16	T	2.85	.57	46.0
HARRIS 7 SSE	54.77	0	.30	0	5.47	3.48	11.11	16.44	7.93	7.27	.36	2.41	0	---	---	---	---
HARTSOOK INN	---	.00	.00	.45	2.94	5.79	11.98	18.75	10.69	7.77	.52	---	---	---	---	---	---
HIGH ROCK	46.89	.01	.00	.49	3.10	5.03	8.62	14.79	5.79	7.49	.35	1.12	.10	0	2.47	.21	49.[illegible]
KNEELAND 10 SSE	42.53	0	0	.57	3.90	5.47	8.25	9.96	5.88	6.06	.70	1.68	.06	.03	3.81	.72	46.5
LAKE MOUNTAIN	---	0	.02	.53	3.77	5.55	7.67	---	---	5.72	.17	2.09	.05	0	3.47	.61	---
LAKE PILLSBURY NO. 2	40.58	.00	.00	.06	2.80	3.78	7.16	13.26	7.79	4.70	.28	.75	0	0	2.05	.15	42.7
LAYTONVILLE	48.48	0	0	.16	3.89	4.77	10.59	12.77	8.97	5.59	.16	1.53	.05	0	5.30	.20	53.[illegible]
MINA 3 NW	46.59	0	0	1.16	3.77	4.44	7.76	11.65	9.06	5.63	.28	2.84	0	---	---	---	---
MYERS FLAT	51.31	.00	.00	.57	4.34	5.38	8.67	16.60	7.48	6.07	.15	2.01	.04	0	1.69	.52	52.[illegible]
OLD HARRIS	55.67	.00	.01	.90	5.41	5.11	9.76	14.11	10.09	6.83	.38	2.98	.09	T	3.53	.44	58.7
PHILLIPSVILLE 1 SE	45.94	.00	.00	.47	3.46	5.65	7.75	13.66	7.84	5.18	.22	1.71	0	0	1.81	.23	47.5
RICHARDSON GROVE	58.37	.00	.00	.37	4.75	5.90	9.60	17.42	9.91	7.85	.41	2.16	0	0	2.94	.19	61.[illegible]
SCOTIA	36.67	T	.00	.85	2.75	4.96	6.48	11.39	3.51	5.11	.32	.98	.32	.06	1.53	.19	37.[illegible]
SHERWOOD VALLEY	45.22	.00	.00	.23	3.18	5.63	8.24	10.70	8.32	6.51	.39	2.01	.01	0	.62	2.33	47.9
STANDISH HICKEY PARK	61.09	.00	T	.68	5.83	5.59	11.13	17.13	10.19	7.79	.29	2.37	.09	0	4.35	.36	65.[illegible]
SUNNY BRAE	33.98	.00	T	1.01	3.52	4.65	5.76	8.97	3.46	3.97	.46	1.83	.35	.10	3.07	.81	36.[illegible]
WBOTT 2 SE	53.25	0	0	.70	4.09	5.39	9.67	13.52	6.68	6.75	.16	1.29	0	0	1.86	.18	54.5
WILLITS 1 NE	40.21	.00	T	.15	3.76	4.04	7.02	10.75	7.07	5.86	.18	1.38	0	0	2.11	.21	42.3
WILLITS HOWARD R S	---	0	.03	.12	3.48	5.33	6.99	---	---	5.41	.36	1.67	0	0	1.33	.21	---
WILLITS N W PAC R R	41.69	0	0	.12	3.68	4.09	7.40	12.15	7.25	5.09	.56	1.35	0	0	1.66	.36	43.5
ZENIA 1 SSE	54.71	.00	.00	.00	5.09	4.17	7.00	14.31	8.86	10.59	1.68	2.64	.41	0	2.75	.64	58.[illegible]
MATTOLE RIVER																	
FERNDALE 8 SSW	37.39	.00	.00	1.33	2.70	4.57	5.66	9.56	5.05	5.45	1.01	1.80	.26	.36	1.87	.38	38.6
HONEYDEW 2 WSW	82.32	.00	.06	.50	6.30	8.70	12.20	28.60	11.25	11.57	.39	2.68	.07	T	4.67	.31	86.[illegible]
HONEYDEW HUNTER	85.52	.00	.00	.61	5.06	8.95	12.02	29.12	16.19	10.93	.37	2.24	.03	0	4.49	.29	89.6
PETROLIA	49.52	.00	.00	.71	4.04	6.53	7.99	16.23	5.29	6.52	.51	1.58	.12	.10	3.75	.49	53.1
PETROLIA 4 NW	37.46	.00	.00	1.03	3.37	6.11	5.61	9.77	4.44	4.56	.57	1.57	.43	---	---	---	---
SHELTER COVE	45.96	.00	.02	.70	4.70	7.00	4.96	10.42	11.37	3.75	.23	2.78	.03	T	3.30	.53	49.0
UPPER MATTOLE	58.80	.00	.00	.57	5.22	7.52	8.46	18.13	8.03	8.03	.38	2.42	.04	0	3.94	.33	62.5
WHITETHORN	67.36	.00	.00	1.16	5.09	8.68	8.93	18.85	12.97	8.04	.56	3.08	0	0	3.30	0	69.5

TABLE A-3

STORAGE GAGE PRECIPITATION DATA
NORTH COASTAL AREA

Station	Measuring Agency	1967-68 Season		
		Measurement Period		Precipitation in Inches
NORTH COASTAL AREA				
SMITH RIVER				
Camp Six Lookout	DWR	7-12-67	7-9-68	74.51
LOST RIVER-BUTTE VALLEY				
Bray 10 WSW	DWR	7-12-67	8-20-68	20.37
Crowder Flat	DWR	7-12-67	7-17-68	12.10
Long Bell Station	DWR	7-13-67	7-18-68	23.48
Medicine Lake	DWR	7-13-67	8-20-68	37.91
SHASTA-SCOTT VALLEYS				
Gazelle Lookout	DWR	7-12-67	7- 9-68	15.48
KLAMATH RIVER				
Beswick 7S	DWR	7-12-67	8-20-68	31.00
Blue Creek Mountain	DWR	8-30-67	8- 6-68	91.48
TRINITY RIVER				
Board Camp Mountain	DWR	7-10-67	7- 8-68	72.55
Mumbo Basin	DWR	7-13-67	7-10-68	49.20
EEL RIVER				
Plaskett	DWR	7-10-67	8-15-68	50.66

DWR - Department of Water Resources

TABLE A-4 TEMPERATURE DATA

The definition of terms and the abbreviations used in Table A-4 are as follows:

Maximum - The highest temperature of record for the month.

Minimum - The lowest temperature of record for the month.

Avg Max - The arithmetic average of daily maximum temperatures for the month.

Avg Min - The arithmetic average of daily minimum temperatures for the month.

Average - The arithmetic average of the daily maximum and minimum temperatures for the month.

TABLE A-4

TEMPERATURE DATA

NORTH COASTAL AREA

Station Name		TEMPERATURE IN DEGREES FAHRENHEIT														
		1967						1968								
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
NORTH COASTAL AREA																
LOST RIVER-BUTTE VALLEY																
DORRIS INSPECT STA	Maximum	93	94	86	72	62	42	50	63	66	74	78	92	94	90	85
	Minimum	38	36	31	16	3	-12	-6	16	14	10	14	29	38	34	20
	Avg Max	85.2	87.7	78.4	62.4	52.8	34.3	39.0	51.0	54.9	57.1	66.5	75.5	86.7	76.2	74.
	Avg Min	46.5	47.1	41.1	30.2	25.7	9.6	16.5	30.0	25.8	25.5	35.3	41.1	47.7	46.4	37.
	Average	65.9	67.4	59.8	46.3	39.3	22.0	27.8	40.5	40.4	41.3	50.9	58.3	67.2	61.3	56.
GRASS LAKE HMS	Maximum	92	94	86	76	65										
	Minimum	40	34	29	18	6										
	Avg Max	83.4	85.9	77.8	61.9	53.0			RECORD ENDS							
	Avg Min	46.2	45.1	37.3	29.7	28.2										
	Average	64.8	65.5	57.6	45.8	40.6										
TULELAKE INSPECT STA	Maximum	95	97	90	77	72	50	52	64	68	76	78	95	98	95	95
	Minimum	41	41	31	21	13	-7	-4	10	12	15	19	34	32	30	24
	Avg Max	87.7	90.5	81.7	64.7	54.5	34.1	38.3	46.6	52.8	58.3	64.6	76.5	87.7	76.5	77.
	Avg Min	48.7	49.7	42.7	31.1	27.6	11.7	15.6	26.9	26.0	25.7	34.1	41.6	47.0	44.8	39.
	Average	68.2	70.1	62.2	47.9	41.1	22.9	27.0	36.8	39.4	42.0	49.4	59.0	67.4	60.6	58.
SHASTA-SCOTT VALLEYS																
MONTAGUE	Maximum	100	104	96	79	72	47	58	70	73	86	84	102	104	97	99
	Minimum	43	41	36	27	18	7	11	21	18	30	33	39	42	38	28
	Avg Max	92.9	95.5	87.5	68.1	58.8	36.6	41.6	56.9	59.5	64.1	72.0	82.9	94.6	82.5	83.
	Avg Min	51.8	49.0	40.6	34.0	29.0	22.5	23.3	33.4	34.5	37.6	43.0	46.8	50.7	47.1	42.
	Average	72.4	72.3	64.1	51.1	43.9	29.6	32.4	45.2	47.0	50.8	57.5	64.8	72.6	64.8	63.
KLAMATH RIVER																
COPCO DAM NO 1	Maximum	108	107	97	83	74	50	59	72	76	87	89	105	108	103	103
	Minimum	54	52	48	30	24	12	10	26	26	27	30	40	42	43	33
	Avg Max	97.5	100.0	91.6	71.6	58.3	39.4	44.5	57.1	62.6	68.3	75.9	86.7	98.5	85.8	87.
	Avg Min	60.7	61.4	55.4	40.4	35.8	22.0	24.3	36.2	34.1	36.6	43.1	51.3	59.7	55.3	51.
	Average	79.1	80.7	73.5	56.0	47.1	30.7	34.4	46.6	48.4	52.4	59.5	69.0	79.1	70.6	69.
SEIAD VALLEY R S	Maximum	109	109	100	85	—	—	64	76	77	89	91	108	107	101	102
	Minimum	46	47	39	30	—	—	19	25	26	26	29	37	48	43	33
	Avg Max	98.7	101.3	92.3	71.2	—	—	48.0	60.0	60.9	71.8	75.9	87.9	97.7	87.6	88.
	Avg Min	53.9	53.2	45.5	40.4	—	—	28.6	35.0	34.4	34.6	42.2	47.9	53.7	51.3	45.
	Average	76.3	77.3	68.9	55.8	—	—	38.3	47.5	47.6	53.2	59.0	67.9	75.7	69.4	66.

TABLE A-4 (Continued)

TEMPERATURE DATA

NORTH COASTAL AREA

Station Name		TEMPERATURE IN DEGREES FAHRENHEIT														
		1967						1968								
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
H COASTAL AREA																
RINITY RIVER																
HIDDEN VALLEY RANCH	Maximum	102	104	98	90											
	Minimum	46	54	48	38											
	Avg Max	95.7	97.8	91.2	71.9			RECORD	ENDS							
	Avg Min	55.6	58.5	51.4	43.7											
	Average	75.7	78.2	71.3	57.8											
AD RIVER																
BLUE LAKE	Maximum	78	76	88	81	70	67	75	81	73	79	73	78	75	90	83
	Minimum	50	51	50	40	32	23	29	36	34	33	35	40	46	48	40
	Avg Max	70.4	71.9	73.6	70.2	62.8	54.6	55.2	62.2	62.5	62.4	63.9	69.3	69.8	71.1	70.1
	Avg Min	55.4	54.9	54.9	50.2	45.9	35.9	38.1	46.0	44.2	40.1	47.5	52.3	52.2	56.1	51.1
	Average	62.9	63.4	64.3	60.2	54.4	45.2	46.6	54.1	53.4	52.2	55.2	60.8	61.0	63.6	60.6
FIELDBROOK 4D RANCH	Maximum	78	77	85	79	70	58	64	74	65	76	74	76	78	91	77
	Minimum	47	47	47	36	29	20	25	32	32	34	36	43	48	45	35
	Avg Max	71.2	72.6	73.3	68.5	60.7	49.5	52.0	59.6	59.6	61.5	63.1	69.7	70.5	70.2	68.2
	Avg Min	51.1	51.4	50.7	45.1	43.1	32.2	34.7	43.6	41.0	42.5	45.4	49.8	51.1	52.5	48.6
	Average	61.2	62.0	62.0	56.8	51.9	40.9	43.4	51.8	50.3	52.0	54.2	59.8	60.8	61.4	58.4
HONOR CAMP 42	Maximum	86	90	94	83	77	70	75	73	66	80	71	96	84	95	89
	Minimum	42	44	46	40	30	23	25	31	29	28	29	36	42	42	38
	Avg Max	72.4	78.2	77.9	67.1	59.7	49.4	50.1	59.3	55.6	59.1	60.9	69.2	71.9	68.9	71.6
	Avg Min	48.8	51.8	51.2	46.1	43.7	33.4	34.8	41.1	36.7	35.5	40.5	46.0	48.9	49.3	49.3
	Average	60.6	65.0	64.6	56.6	51.7	41.4	42.4	50.2	46.2	47.3	50.7	57.6	60.4	59.1	60.4
KORBEL	Maximum	84	80	95	84	74	62	67	80	76	85	78	—	80	94	90
	Minimum	43	46	46	36	30	20	26	32	28	28	30	—	40	43	36
	Avg Max	75.8	77.5	78.4	73.3	63.3	51.7	54.5	63.4	64.4	64.9	67.6	—	75.4	75.4	75.9
	Avg Min	50.3	50.3	49.2	44.7	41.6	31.5	35.1	43.9	39.5	36.8	42.9	—	49.4	52.4	48.0
	Average	63.1	63.9	63.8	59.0	52.5	41.6	44.8	53.6	51.4	50.8	55.2	—	62.4	63.9	62.0
EL RIVER																
BULL CREEK	Maximum	—	—	—	76	68	—	58	66	—	—	—	99	99	—	—
	Minimum	—	—	—	32	27	—	24	36	—	—	—	38	46	—	—
	Avg Max	—	—	—	66.7	58.4	—	46.2	56.5	—	—	—	82.3	86.2	—	—
	Avg Min	—	—	—	41.7	39.4	—	31.3	42.0	—	—	—	46.9	50.9	—	—
	Average	—	—	—	54.2	48.9	—	38.8	49.3	—	—	—	64.6	68.5	—	—
BURLINGTON STATE PK	Maximum	—	—	94	77	74	60	64	70	71	86	84	94	96	—	91
	Minimum	—	—	50	40	34	23	31	38	35	34	38	42	52	—	42
	Avg Max	—	—	83.4	70.4	63.3	50.9	53.6	60.8	64.1	65.6	73.0	80.6	84.6	—	80.6
	Avg Min	—	—	53.6	46.2	44.5	35.4	37.0	46.1	42.3	42.9	46.7	52.1	54.7	—	52.2
	Average	—	—	68.5	58.3	53.9	43.2	45.3	53.5	53.2	54.3	59.9	66.4	69.6	—	66.4
GARBERVILLE HMS	Maximum	104	108	105	103	80	64	65	77	80	90	90	104	106	104	103
	Minimum	50	46	40	34	34	18	20	34	32	30	37	36	44	40	43
	Avg Max	91.5	97.3	96.5	89.3	67.1	53.6	54.9	64.7	69.1	72.7	77.5	86.2	90.4	87.4	89.6
	Avg Min	54.7	54.1	50.5	46.2	44.0	30.9	33.9	44.0	39.0	39.8	45.6	48.7	52.2	47.6	50.9
	Average	73.1	75.7	73.4	67.8	55.6	42.2	44.4	54.4	54.0	56.2	61.5	67.4	71.3	67.5	70.2
GRIZZLY CRK REDWOOD	Maximum	90	90	96	87	76	60	68	77	74	87	81	87	86	101	94
	Minimum	49	45	44	35	30	19	25	33	29	28	33	38	40	47	38
	Avg Max	74.5	79.8	78.7	71.8	63.1	50.7	52.5	62.2	62.9	64.0	66.9	73.6	75.4	74.4	76.1
	Avg Min	51.9	51.2	50.7	44.1	43.5	32.2	34.2	43.3	40.0	39.0	45.4	48.5	50.1	52.3	49.4
	Average	63.2	65.1	64.7	58.0	53.3	41.4	43.4	52.8	51.4	51.5	56.2	61.0	62.8	63.4	62.8
HOLMES	Maximum	91	88	94												
	Minimum	50	50	47												
	Avg Max	76.0	80.2	79.6				RECORD	ENDS							
	Avg Min	54.3	53.9	53.8												
	Average	65.2	67.1	66.7												
OLD HARRIS	Maximum	98	100	100	80	75	90	78	84	74	80	74	88	86	85	82
	Minimum	40	41	40	37	28	20	20	30	24	24	30	32	40	40	34
	Avg Max	83.3	89.9	83.5	66.3	59.1	59.0	51.4	60.5	57.9	60.7	59.3	72.2	74.4	69.6	72.1
	Avg Min	48.7	57.0	50.0	44.3	39.7	31.8	31.6	39.5	34.5	33.0	36.0	42.4	46.1	45.7	47.6
	Average	66.0	73.5	66.8	55.3	49.4	45.4	41.5	50.0	46.2	46.9	47.6	57.3	60.2	57.6	59.8
STANDISH HICKEY PK	Maximum	96	102	99	84	80	99	84	77	73	83	76	92	90	91	87
	Minimum	48	45	42	36	31	21	29	32	29	31	34	37	38	47	40
	Avg Max	88.5	92.4	83.7	69.4	65.5	57.3	53.3	60.7	59.0	63.7	65.0	73.1	75.4	75.0	74.6
	Avg Min	52.5	52.2	50.1	43.6	41.3	31.5	33.8	42.7	38.2	38.4	41.6	48.3	51.3	52.7	48.9
	Average	70.5	72.3	66.9	56.5	53.4	44.4	43.6	51.7	48.6	51.0	53.3	60.7	63.4	63.8	61.8

TABLE A-5 EVAPORATION DATA

The definition of terms and the abbreviations used in Table A-5 are as follows:

Evap - The total amount of water evaporated from the pan in inches for the month.

Wind - The amount of movement of air over the pan in miles for the month.

Avg Max - The arithmetic average of daily maximum water temperatures in degrees Fahrenheit for the month.

Avg Min - The arithmetic average of daily minimum water temperatures in degrees Fahrenheit for the month.

TABLE A-5
EVAPORATION DATA
NORTH COASTAL AREA

Station Name		Evaporation in Inches							Wind in Total Miles										Water Temperature in Degrees Fahrenheit									
		Total July 1 To June 30	1967						1968									Tot Oc To Sep										
			July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.											
NORTH COASTAL AREA																												
LOST RIVER-BUTTE VALLEY																												
TULELAKE	Evap	---	9.64	9.05	7.10	3.33	---	---	---	---	---	6.22[b]	7.03	9.01	10.37	7.07	6.61	--										
	Wind																											
	Avg Max																											
	Avg Min																											
KLAMATH RIVER																												
SEIAD VALLEY RANGER S	Evap	---	9.22	8.06	5.37	---	---	---	---	---	---	---	---	---	9.09	4.08	4.24	--										
	Wind																											
	Avg Max																											
	Avg Min																											
TRINITY RIVER																												
TRINITY DAM VISTA PT	Evap	---	10.65	10.09	6.45	2.45	0.77	---	---	---	2.27	5.53	6.03	8.94	10.76	7.02	6.11	--										
	Wind	---	1237	1242	1086	984	774	---	---	---	986	1342[b]	1107	1211	1179	1201	1062	--										
	Avg Max																											
	Avg Min																											
EEL RIVER																												
FERNDALE 2 NW	Evap	---	4.38	3.85	3.55	2.31	1.19	1.00	1.02	1.13	2.58	3.77	4.06	4.59	4.27	3.89	3.11	--										
	Wind	---	893	760	610	794	729	1337	1364	986	1125	997	1077	977	885	790	591	--										
	Avg Max	---	80.1	79.0	80.2	71.0	61.7	50.7	53.0	62.4	67.2	71.4	75.9	82.7	79.2	79.8	76.4	--										
	Avg Min	---	57.9	57.4	57.6	51.6	47.7	39.2	40.7	48.6	46.6	48.2	51.3	55.2	57.2	58.3	55.1	--										
LAKE PILLSBURY NO 2	Evap	---	10.63	10.07	7.29	2.89	1.47	2.17	0.82	1.44	3.06	6.06	7.24	9.63	11.17	7.70	6.97	--										
	Wind	---	728	532	610	317	230	457	256	341	550	711	724	704	628	602	581	--										
	Avg Max	---	94.4	93.1	86.0	72.7	60.5	45.0	46.0	60.5	66.5	76.3	81.2	89.2	92.1	86.2	82.6	--										
	Avg Min	---	62.5	61.4	56.7	48.6	45.3	36.8	35.2	43.9	43.4	44.8	51.4	56.4	59.9	58.5	53.8	--										

b Record partially estimated
--- No record or record incomplete

APPENDIX B

SURFACE WATER MEASUREMENTS

INTRODUCTION

This appendix presents surface water data for the 1968 water year, the period from October 1, 1967, to September 30, 1968. The data consist of daily mean discharges, gaging station locations, and summary tables of monthly and annual unimpaired runoff from major streams.

Continuous records of stage and flow, together with instantaneous peak flood data are available in the files of the Department of Water Resources.

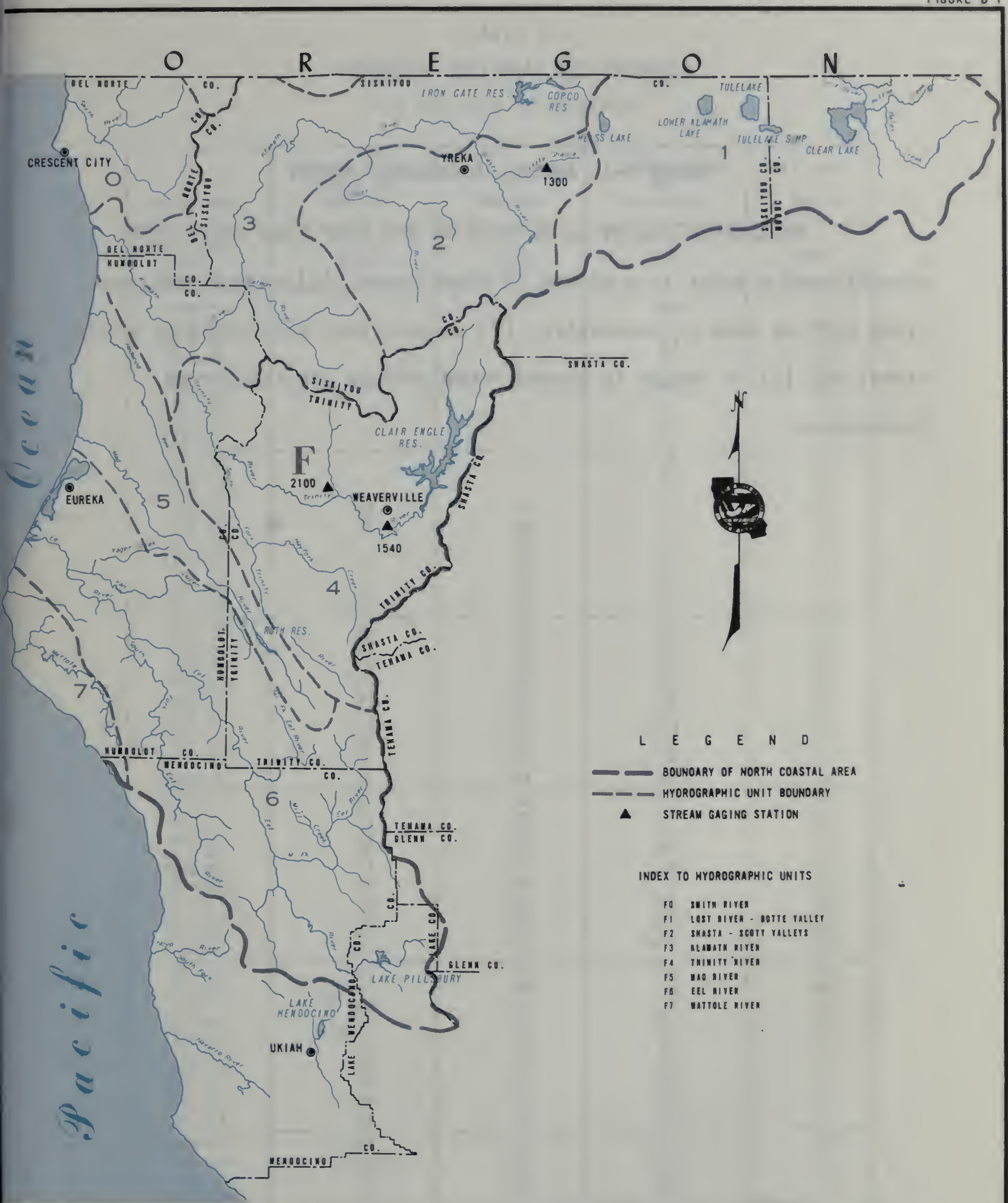
Each station in this appendix has been assigned an identification number. The letter and first digit denote the drainage basin as shown below. The remaining digits identify each station.

North Coastal Area

F0 - Smith River
F1 - Lost River-Butte Valley
F2 - Shasta-Scott Valleys
F3 - Klamath River
F4 - Trinity River
F5 - Mad River
F6 - Eel River
F7 - Mattole River

INDEX TO GAGING STATIONS

FIGURE B-1



SURFACE WATER MEASUREMENT STATIONS

TABLE B-1 ANNUAL UNIMPAIRED RUNOFF

Unimpaired runoff is defined as the flow that would occur naturally at a point in a stream if there were: (1) no upstream controls such as dams or reservoirs; (2) no artifical diversions or accretions; and (3) no change in ground water storage resulting from development.

TABLE B-1

ANNUAL UNIMPAIRED RUNOFF

In Percent of Average

Water Year	Klamath River, Copco To Somesbar	Salmon River at Somesbar	Trinity River at Lewiston	Eel River at Scotia
Average Annual Runoff*	4332	1180	1167	5146
1915-16			129	
1916-17			56	84
1917-18			52	44
1918-19			99	103
1919-20			35	28
1920-21			154	152
1921-22			67	72
1922-23			59	54
1923-24			23	17
1924-25			128	139
1925-26			69	64
1926-27			156	153
1927-28	88	93	91	90
1928-29	58	50	45	37
1929-30		65	70	68
1930-31	41	40	34	31
1931-32	77	89	62	70
1932-33	83	86	69	71
1933-34	50	49	59	48
1934-35	83	96	83	99
1935-36	92	97	88	112
1936-37	75	83	86	69
1937-38	183	189	180	209
1938-39	59	64	49	52
1939-40	104	108	138	142
1940-41	103	107	218	160
1941-42	107	112	155	144
1942-43	137	147	95	111
1943-44	63	54	56	44
1944-45	84	96	90	93
1945-46	118	129	121	117
1946-47	60	65	63	51
1947-48	99	105	103	92
1948-49	74	81	94	81
1949-50	94	100	73	80
1950-51	146	152	138	139
1951-52	153	166	156	156
1952-53	149	153	138	139
1953-54	142	136	136	134
1954-55	61	50	63	62
1955-56	191	186	174	198
1956-57	100	100	93	84
1957-58	189	191	231	227
1958-59	79	85	89	80
1959-60	80	80	88	91
1960-61	104	102	104	104
1961-62	75	81	89	77
1962-63	136	145	137	138
1963-64	92	95	68	67
1964-65	165	158	147	183
1965-66	103	94	115	100
1966-67	120	107	142	129
1967-68**	78	80	86	81

* Average Unimpaired Runoff in Thousands of Acre-Feet Computed From the 50-Year Period October 1915 Through September 1965.

** Preliminary Data Subject to Revision

TABLE B-2

MONTHLY UNIMPAIRED RUNOFF

In Percent of Average

Month		Klamath River Copco to Somesbar	Salmon River at Somesbar	Trinity River at Lewiston	Eel River at Scotia
October 1967	Percent*	78	82	90	66
	Average**	90	22	21	56
November 1967	Percent*	43	38	47	15
	Average**	220	56	47	274
December 1967	Percent*	32	37	41	53
	Average**	485	116	91	874
January 1968	Percent*	81	93	109	117
	Average**	579	141	94	1042
February 1968	Percent*	184	173	206	118
	Average**	595	155	144	1180
March 1968	Percent*	95	107	108	89
	Average**	577	157	152	797
April 1968	Percent*	54	53	66	29
	Average**	630	180	214	571
May 1968	Percent*	50	53	62	34
	Average**	572	186	229	235
June 1968	Percent*	53	52	50	43
	Average**	334	108	118	79
July 1968	Percent*	60	46	26	55
	Average**	126	35	35	22
August 1968	Percent*	96	107	46	156
	Average**	67	14	13	9
September 1968	Percent*	11	110	111	114
	Average**	57	10	9	7
1967-68 Water Year		78	80	86	81
		4332	1180	1167	5146

* Preliminary Data Subject to Revision.

** Average Unimpared Runoff in Thousands of Acre-Feet Computed From the 50-Year Period October 1915 Through September 1965.

TABLE B-3

GAGING STATION
ADDITIONS AND DISCONTINUATIONS

ADDITIONAL STATIONS

None

DISCONTINUED STATIONS

Big Creek near Hayfork - 10/1/67
Browns Creek near Douglas City - 10/1/67
Moffett Creek near Fort Jones - 10/1/67
Shasta River near Edgewood - 10/1/67

PUBLICATION DISCONTINUED

None

PUBLISHED DATA FROM PRIOR YEARS

None

TABLE B-4 DAILY MEAN DISCHARGE

The streamflow table is arranged in downstream order for each stream or stream system. Stations on a tributary entering between two main stem stations are listed between those stations, and in downstream order on that tributary. A stream gaging station is named after the stream and the nearest post office (e.g., Weaver Creek near Douglas City).

The discharges estimated for periods of no record or invalid record are shown with the letter "E". Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures in this table have been rounded off as follows:

1. Daily flows - Cubic feet per second

0.0	- 9.9	nearest	Tenth
10	- 999	"	Unit
1,000	- 9,999	"	Ten
10,000	- 99,999	"	Hundred
100,000	- 999,999	"	Thousand

2. Monthly means - Cubic feet per second

0.0	- 99.9	nearest	Tenth
100	- 9,999	"	Unit
10,000	- 99,999	"	Ten
100,000	- 999,999	"	Hundred

3. Yearly totals - acre-feet

0.0	- 9,999	nearest	Unit
10,000	- 99,999	"	Ten
100,000	- 999,999	"	Hundred
1,000,000	- 9,999,999	"	Thousand

ABLE B-4

AY MEAN DISCHARGE

(CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1968	F21300	LITTLE SHASTA RIVER AT MONTAGUE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.9	4.9	4.6 E	4.0 E	5.2	24	20	9.9	5.6	3.6	3.2	2.6
2	5.2	4.9	4.6 E	4.0 E	5.2	19	20	9.5	5.6	3.4	3.2	2.6
3	6.4 *	4.9	4.6 E	4.0 E	5.5	19	15	9.1	5.9	3.4	3.2	2.6
4	5.8	4.9	4.6 E	4.0 #	6.1	18	15	9.1	5.6	3.4	2.8	2.4 *
5	6.1	4.9	4.3 E	4.0 E	6.4	20	16	8.7	9.1 *	3.2	2.8	2.2
6	6.1	4.9 *	4.3 E	4.0 E	7.3	16	15	8.7	8.3	3.0	2.8	2.2
7	5.5	4.9	4.3 E	4.0 E	8.2	15	14	8.7	6.2	3.0	2.8	2.2
8	5.2	4.9	4.3 E	4.0 E	8.7	13	15	8.7	5.6	3.0	3.2	2.2
9	5.2	4.9	4.3 E	4.0 E	9.2	12	16	8.3	5.6	3.0 *	3.0	2.2
10	4.6	4.9	4.3 E	4.0 E	9.6	11	17	7.9	5.4	2.8	2.8	2.2
11	4.6	4.9	4.3 E	4.0 E	10	11	18	9.1	5.4	2.8	2.6	2.2
12	4.6	4.9	4.3 E	4.0 E	9.6	11	16	8.7	5.1	2.8	2.6	2.4
13	4.6	4.9	4.3 E	4.0 E	7.8	10 *	14	9.9	5.1	2.8	2.6 *	2.6
14	4.6	6.1	4.3 E	6.9	6.9	12 E	14	11	5.1	2.8	3.2	3.0
15	4.6	5.8	4.3 E	14	6.9	10 E	14	9.1	5.1	3.0	2.8	2.8
16	4.6	5.5	4.3 E	12	6.1 *	11 E	14	8.3	4.8	3.0	3.2	2.6
17	4.6 *	5.2	4.3 E	13	7.3	11 E	12	7.9	4.8	3.0	2.8	2.4 *
18	4.6	4.9	4.0 E	13	11	12 E	12	7.5	4.8	3.0	3.6	2.4
19	4.6	4.9	4.0 E	5.8	16	11	12	8.3	4.5	3.0	5.4	2.4
20	4.6	4.9	4.0 E	6.1	28	11 E	11	12	4.2	3.0	5.1	2.6
21	5.2	4.9	4.0 E	7.8	68	11 E	11	11	4.2	2.8	4.0	2.6
22	5.5	4.6 *	4.0 E	12	114	12 E	11	12	4.2	2.8	3.6	2.4
23	5.2	4.6	4.0 E	10 *	141 *	13 E	11	9.5	4.2	2.8	3.4	2.4
24	4.9	4.6	4.0 E	9.2	74	14 E	11	8.7	4.2	2.8 *	3.2	2.4
25	4.6	4.6 E	4.0 E	8.2	46	23 *	10	8.3	4.2 *	2.8	3.2	2.4
26	4.6	4.6 E	4.0 E	7.3 E	37	18	10	7.5	3.8	2.8	3.8	2.8
27	4.6	4.6 E	4.0 E	6.9 E	33	15	10	7.1	3.8	2.6	3.2	2.6
28	5.8	4.6 E	4.0 E	6.1 E	29	15	10	6.5 *	3.8	2.6	3.0	2.8
29	5.8	4.6 E	4.0 E	5.8 E	26	17	10	6.2	3.8	2.6	2.8	2.8
30	5.5	4.6 E	4.0 E	5.5 E		19	9.9 *	5.9	3.6	2.6	2.6	2.8
31	4.9		4.0 E	5.2 E		20		5.9		2.6	2.6	
MEAN	5.1	4.9	4.2	6.7	25.8	14.6	13.5	8.7	5.1	2.9	3.2	2.4
MAX.	6.4	6.1	4.6 E	14	141	24	20	12	9.1	3.6	5.4	3.0
MIN.	4.6	4.6	4.0 E	4.0 E	5.2	10	9.9	5.9	3.6	2.6	2.6	2.2
AC. FT.	313	292	258 E	410 E	1486	900	801	534	301	180	197	148

E - ESTIMATED
- NO RECORD
* - DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
* - E AND *

WATER YEAR SUMMARY

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MAXIMUM MO.	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MINIMUM MO.	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
8.0	180	2.91	2	23	0915	2.2	1.31	5	11		5,820

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	CFS	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF. DATUM
41 45 11	122 17 44	NW15 45N 4W	5910 E	10.66	12/22/64	28-NOV 51 8 APR 52-APR 55 SEP 56-DATE	28-NOV 51 8 APR 52-APR 55 SEP 56-DATE	1956 1965	1964	0.00	LOCAL

Station located S of Ball Mountain Road, 12 mi. NE of Montague, 16 mi. SW of Macdoel. Stage-discharge relationship affected by ice at times. Drainage area is 48.2 sq. mi.

8 - Irrigation season only.

TABLE B-4 (Cont.)

DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1968	F41540	WEAVER CREEK NEAR DOUGLAS CITY

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.6	4.4	9.9	19	25 E	162	55	34	13	4.4	1.1	1.1
2	19 #	4.4	17	19	117 E	138	49	34	14	4.0	1.6	0.9
3	9.9 E	4.4	26	18 E	180 E	123	48	34 *	14	4.0	1.2	0.8
4	5.4	4.4	57	18 #	144 E	109	47	36	12	3.6	0.8	0.7
5	5.7	4.7	71 #	17 #	123 E	103	46	34	15	3.1 *	0.7	0.7
6	5.1	4.4 *	29 E	16 E	146 E	92 *	44	32	15	3.1	0.6	0.6
7	4.7	4.7	28 E	16 E	196 E	85	42	30	13	2.7	0.5 *	0.6
8	4.4	5.4	20 E	17	192 E	78	43	29	12	2.3	0.6	0.6
9	4.1	5.4	18 E	27	210 E	73	43	29	12	2.0	0.8	0.6
10	4.1	5.4	17 E	33	206 E	66	44	27	11	2.3	0.7	0.6
11	4.1	5.4	16 E	27	192 E	63	46	27	10	2.0	0.6	0.6
12	4.1	4.7	15 E	26	188 E	107	43	24	11	1.7	0.4 *	0.7
13	4.1	5.1	12 E	188	188 E	89	42	26	11	1.7	0.4	0.8
14	4.1	17	12 E	971	152 E	85 *	41	26	10	1.7	0.4	0.9
15	4.1	9.3	12 E	628 *	139 #	68 *	41	24	9.5	1.7	0.5	1.2
16	3.8	7.1	12 E	277 *	201	143	41	22	8.3	1.7 *	0.4	1.2
17	3.8 *	6.6	12 E	155 *	371	114	39	22	7.1	2.0	0.5	1.1
18	3.8	6.0	17 E	101 *	263	92 *	38	21	6.5	1.7	0.5	0.9
19	3.8	5.7	12 E	72	997	83 *	39	29	6.1 *	1.3	1.1	0.9 *
20	4.1	5.7	10 E	57 E	759 *	78	38	33	5.7	1.0	2.2	1.0
21	5.1	5.4 *	9.9 E	67 E	709 *	73	38	24	5.2	1.0	2.7	1.4
22	5.7	5.4	9.9 E	99 E	1470	68	36	23	5.2	1.1 *	2.4 *	1.6
23	5.1	5.4	12 E	112 E	1310 *	65	34	21	5.2	0.9	2.2	1.4
24	4.7	5.4	12 E	103 E	646 *	62	33	21	4.8	0.9	1.8	1.1
25	4.7	5.4	15 E	91 E	466	71	33	23	4.8	1.0	2.0	1.1
26	4.7	5.4	20 E	72 E	358	60	33	21	4.4	1.0	3.3	0.9
27	4.7	5.7	23 E	54 E	282	56	32	19	4.0	0.9	3.3	0.8
28	4.7	6.0	25 E	43 E	222	55 *	32	18	3.6	0.7	2.7	0.8
29	4.7	11	25 E	46 E	184	56	32	16 *	4.0	0.7	2.4	0.7
30	4.7	12	22 E	34 E		56	33 *	16	4.0	0.7	1.8	0.7
31	4.4		21 E	26 E		55		14		0.5	1.4	
MEAN	5.1	6.2	19.9	111	367	84.8	40.2	25.5	8.7	1.9	1.3	0.9
MAX.	19 E	17	71 E	971	1470	162	55	36	15	4.4	3.3	1.6
MIN.	1.6	4.4	9.9	16 E	25 E	55	32	14	3.6	0.5	0.4	0.6
AC. FT.	311	372	1225 E	6841 E	21100 E	5213	2390	1565	518	114	83	54

E — ESTIMATED
NR — NO RECORD
* — DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
# — E AND *

WATER YEAR SUMMARY

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MAXIMUM MO.	MAXIMUM DAY	MAXIMUM TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MINIMUM MO.	MINIMUM DAY	MINIMUM TIME	TOTAL ACRE FEET
53.3	1780	4.71	2	22	2300	NR					38,720

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	CFS	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF. DATUM
40 40 13	122 56 33	SE36 33N 10W	3980 E	12.72	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 0.2 mi. below State Highway 299 bridge, 1.2 mi. N of Douglas City, 4.2 mi. S of Weaverville. Tributary to Trinity River. Drainage area is 48.4 sq. mi.

TBLE B-4 (Cont.)

D.LY MEAN DISCHARGE
N CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1968	F42100	NORTH FORK TRINITY RIVER NEAR HELENA

DY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
	26	37	61	268	294	1040	512	296	233	74 E	34	33	1
	68	36	69	233	466	940	478	282	258	68 E	36	31	2
	110	35	100	206	910	856	439	300 *	231	70 E	35	30	3
	58	34	170	181 *	806	802	418	325	208	72 E	32	29	4
	56	36	501	166	714	814	400	312	208	75 #	32	28	5
	53	35 *	345	150	675	739 *	379	260	185	89	30	27	6
	47	34	252	141	758	648	355	241	167	80	29 *	27	7
	44	39	279	141	782	554	345	247	160	69	31	26	8
	43	50	220	186	754	487	350	264	154	63	31	25	9
	41	48	179	225	710	430	391	267	155	59	29	25	10
	40	45	166	286	652	400	448	256	169	56 *	29	25	11
	39	42	151	284	617	418	433	237	160	54	28 *	25	12
	39	42	135	670	617	403	391	231	141	52	28	26	13
	38	513	114	3170	577	409	358	214	150 E	51	29	33	14
	37	199	118	3450 *	530 *	409 *	350	198	152 E	49	29	29	15
	37	113	110	1730 *	550	481	332	193	160 E	48 *	28	26	16
	36 *	84	103	1030 *	776	558	308	210	161 E	46	28	25	17
	36	73	110	751 *	870	469 *	287	222	168 E	43	28	25	18
	35	66	94	577	1980	442 *	273	385	172 #	41	34	24 *	19
	35	63	93	498	3600 *	421	264	490	160 E	40	47	24	20
	45	59 *	87	537	4370 *	403	252	310	150 E	40	47	24	21
	65	56	87	599	6760	397	241	260	138 E	40 *	42 *	24	22
	48	54	98	595	7930 *	400	235	222	128 E	38	38	24	23
	44	52	127	567	4400 *	409	237	204	118 E	38	36	24	24
	41	51	200	537	2610	547	226	237	108 E	37	40	23	25
	40	49	325	485	1950	554	231	243	100 E	37	93	22	26
	38	49	482	427	1560	508	254	267	92 E	37	68	22	27
	41	50	516	386	1320	502 *	269	271	86 E	35	55	21	28
	40	59	458	361	1150	544	287	264 *	82 E	34	46	21	29
	39	64	366	323		561	315 *	231	78 E	34	40	21	30
	37		306	304		530		214		33	36		31
AN	45.0	72.2	207	628	1713	551	335	263	154	51.7	37.7	25.6	MEAN
X.	110	513	516	3450	7930	1040	512	490	258	89	93	33	MAX.
N.	26	34	61	141	294	397	226	193	78	33	28	21	MIN.
FT.	2769	4298	12740	38610	98550	33870	19950	16170	9187	3178	2317	1525	AC.FT.

– ESTIMATED
– NO RECORD
– DISCHARGE MEASUREMENT OR OBSERVATION OF FLOW MADE THIS DAY.
– E AND *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
335	10300	18.12	2	22	2400	21	5.73	9	28	2400	243,200

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
40 46 56	123 07 39	SW21 34N 11W	35800	27.93	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 1.0 mi. above mouth, 0.6 mi. N of Helena. Stage-discharge relationship affected by ice at times. Drainage area is 151 sq. mi.

APPENDIX C

GROUND WATER MEASUREMENTS

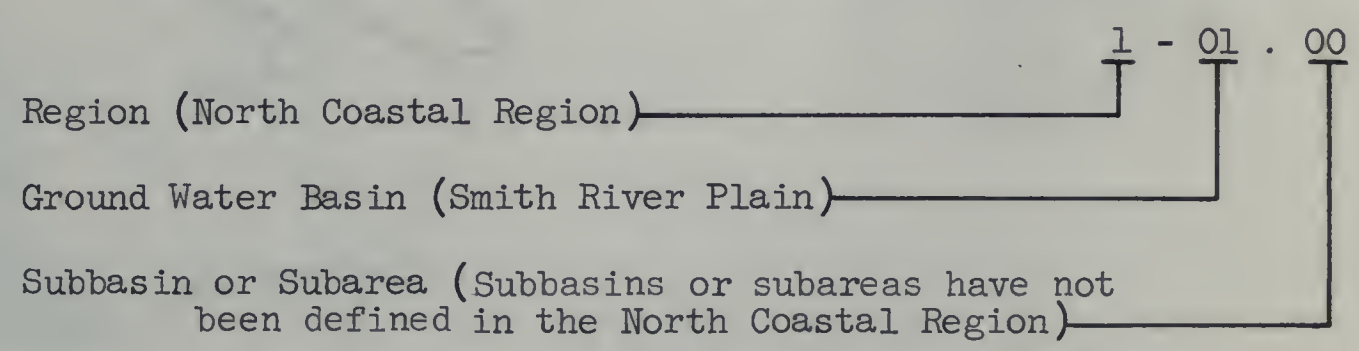
INTRODUCTION

This appendix contains ground water level measurements from 48 wells for the period October 1, 1967, through September 30, 1968. It also contains a table which summarizes the measurements. Wells in the network are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

There are nine ground water basins in the North Coastal Region for which data are reported.

Two numbering systems are used by the Department to facilitate the processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System as described below.

The regions used in this report are geographic areas defined in Section 13040 of the Water Code. That portion of Northern California covered by this report comprises the North Coastal Region No. 1. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:



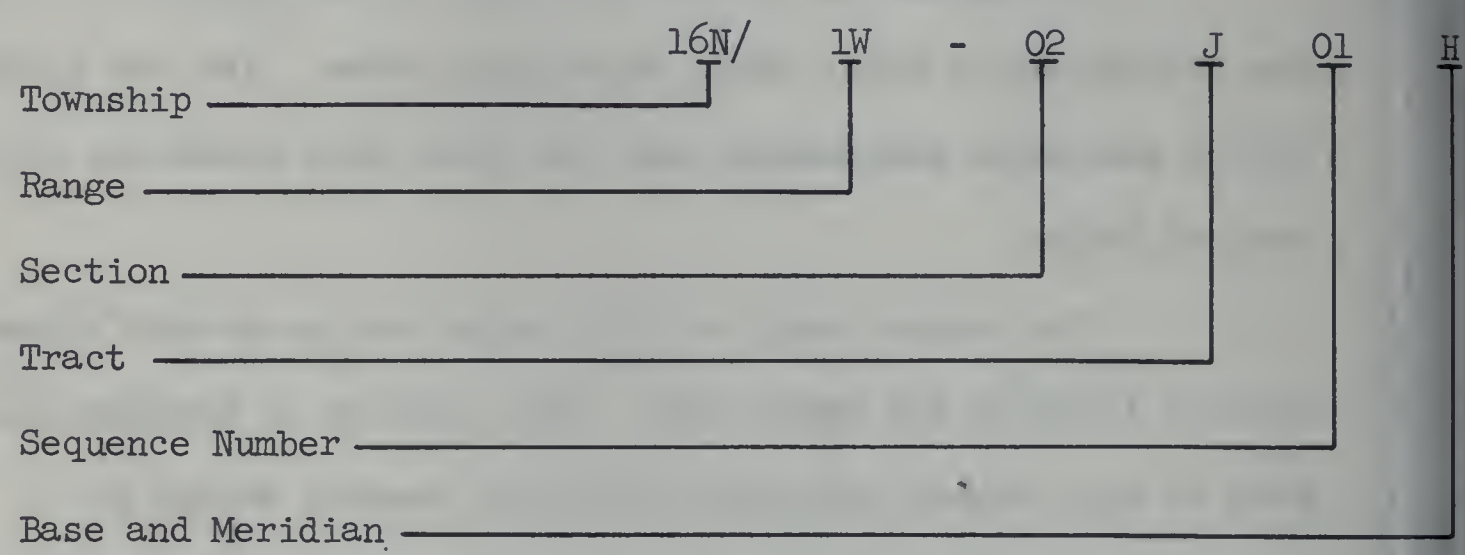
The State Well Numbering System is based on township, range, and section subdivisions of the Public Land Survey.

A section is divided into 40-acre tracts as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Sequence numbers in a tract are generally assigned in chronological order.

The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below:



This number identifies and locates the well. In the example, the well is in Township 16 North, Range 1 West, Tract J of Section 2, located in the Humboldt Base and Meridian.

GROUND WATER BASINS, WATER LEVEL MEASUREMENTS

TABLE C-1

AVERAGE CHANGE OF GROUND WATER LEVELS
AND SUMMARY OF WELL MEASUREMENTS REPORTED

Ground Water Basin		Average Change Spring 1967 to Spring 1968 in feet	Measuring Agency	Number of Wells Reported		
Name	Number			Monthly 1967-68	Fall 1967	Spring 1968
NORTH COASTAL REGION						
Smith River Plain	1-01.00	-1.3	DWR		6	6
Butte Valley	1-03.00	-1.3	DWR		6	6
Shasta Valley	1-04.00	-1.8	DWR		7	7
Scott River Valley	1-05.00	-1.0	DWR		6	5
Mad River Valley	1-08.00	+0.8	DWR		2	2
Eel River Valley	1-10.00	-4.0	DWR		4	4
Round Valley	1-11.00	+0.5	DWR		6	6
Laytonville Valley	1-12.00	+1.2	DWR		4	4
Little Lake Valley	1-13.00	-4.1	DWR		7	6

DWR - Department of Water Resources

TABLE C-2 GROUND WATER LEVELS AT WELLS

An explanation of the column headings and the code symbols follows:

State Well Number - Refer to the explanation presented on pages 35 and 36 in the Introduction.

Ground Surface Elevation - The numbers in this column are the elevation in feet above mean sea level (USGS) of the ground surface at the well.

Date - The date shown in the column is the date when the depth measurement given in the next column was made. Elevations are usually taken from topographic maps and the accuracy is controlled by topographic standards.

Ground Surface to Water Surface - This is the measured depth in feet from the ground surface to the water surface in the well; some of the depth measurements in the column may be preceded by a number in parentheses to indicate a questionable measurement. The code applicable to these "questionable measurements" is as follows:

(1) Pumping
(2) Nearby pump operating
(3) Casing leaking or wet
(4) Pumped recently
(5) Air or pressure gage measurement
(6) Other
(7) Recharge operation at or near well
(8) Oil in casing
(9) Caved or deepened

When a measurement was attempted, but could not be obtained, then only a number in parentheses is shown in the column. The code applicable to these "no measurements" is as follows:

(1) Pumping
(2) Pump house locked
(3) Tape hung up
(4) Cannot get tape in casing
(5) Unable to locate well
(6) Well has been destroyed
(7) Special
(8) Casing leaking or wet
(9) Temporarily inaccessible
(0) Measurements discontinued

The words FLOW and DRY are shown in this column to indicate a flowing or dry well, respectively. A minus preceding the number in this column indicates that the static water level in the well is this distance in feet above the ground surface.

Water Surface Elevation - This is the elevation in feet above mean sea level (USGS Datum) of the water surface in the well. It was derived by subtraction of the depth measurement from the ground surface elevation.

Agency Supplying Data - Each of these numbers is the code number for the agency supplying data for that measurement. The Department of Water Resources is the sole agency supplying ground water level measurement data for this report. It has been assigned an agency code number of 5050.

TABLE C-2

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SMITH RIVER PLAIN 1-01.00					
16N/01W-02J01 H	127.0	10-04-67	25.4	101.6	5050
		4-10-68	17.0	110.0	5050
16N/01W-17K01 H	48.0	10-04-67	21.5	26.5	5050
		4-10-68	15.7	32.3	5050
17N/01W-02P01 H	31.0	10-04-67	22.1	8.9	5050
		4-10-68	18.2	12.8	5050
17N/01W-03E01 H	14.0	10-04-67	14.5	-0.5	5050
		4-10-68	10.5	3.5	5050
17N/01W-15M02 H	21.0	10-04-67	16.6	4.4	5050
		4-10-68	9.0	12.0	5050
18N/01W-26P01 H	38.0	10-04-67	16.2	21.8	5050
		4-10-68	12.7	25.3	5050
BUTTE VALLEY 1-03.00					
46N/01E-06N01 M	4242.0	10-05-67	22.9	4219.1	5050
		4-12-68	19.2	4222.8	5050
46N/02W-25R02 M	4256.0	10-05-67	30.0	4226.0	5050
		4-12-68	24.6	4231.4	5050
47N/01W-14B01 M	4234.0	10-05-67	10.2	4223.8	5050
		4-12-68	10.5	4223.5	5050
47N/01W-17R01 M	4240.0	10-05-67	9.3	4230.7	5050
		4-12-68	9.7	4230.3	5050
47N/01W-19L01 M	4238.0	10-05-67	5.0	4233.0	5050
		4-12-68	5.7	4232.3	5050
47N/01W-27B01 M	4233.0	10-05-67	8.6	4224.4	5050
		4-12-68	8.8	4224.2	5050
48N/01W-26N01 M	4244.0	10-05-67	22.6	4221.4	5050
		4-12-68	19.4	4224.6	5050
SHASTA VALLEY 1-04.00					
42N/05W-22J01 M	2882.0	10-04-67	3.0	2879.0	5050
		4-11-68	4.5	2877.5	5050
42N/06W-10J01 M	2835.0	10-04-67	13.5	2821.5	5050
		4-11-68	6.3	2828.7	5050
43N/06W-22A01 M	2665.0	10-04-67	10.1	2654.9	5050
		4-11-68	(1)	---	5050
44N/05W-34H01 M	2637.0	10-04-67	25.6	2611.4	5050
		4-11-68	29.2	2607.8	5050
44N/06W-10F01 M	2537.0	10-04-67	16.3	2520.7	5050
		4-11-68	27.8	2509.2	5050
45N/05W-29B01 M	2635.0	10-04-67	17.3	2617.7	5050
		4-11-68	21.8	2613.2	5050
45N/06W-19E01 M	2538.0	10-04-67	19.8	2518.2	5050
		4-11-68	18.0	2520.0	5050
SCOTT RIVER VALLEY 1-05.00					
42N/09W-02A02 M	2746.0	10-04-67	13.0	2733.0	5050
		4-11-68	9.9	2736.1	5050
42N/09W-08C03 M	2836.0	10-04-67	(0)	---	5050
42N/09W-27N01 M	2930.0	10-04-67	6.7	2923.3	5050
		4-11-68	4.7	2925.3	5050
43N/09W-23F01 M	2728.0	10-04-67	6.3	2721.7	5050
		4-11-68	3.5	2724.5	5050
43N/09W-24F01 M	2735.0	10-04-67	11.0	2724.0	5050
		4-11-68	10.9	2724.1	5050
44N/09W-28P01 M	2711.0	10-04-67	18.4	2692.6	5050
		4-11-68	10.0	2701.0	5050

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MAD RIVER VALLEY 1-08.00					
06N/01E-06H01 H	151.0	10-03-67	12.5	138.5	5050
		4-10-68	3.5	147.5	5050
06N/01E-29P01 H	25.0	10-03-67	9.1	15.9	5050
		4-10-68	6.8	18.2	5050
EEL RIVER VALLEY 1-10.00					
02N/01W-08B01 H	34.0	10-03-67	21.9	12.1	5050
		4-10-68	15.9	18.1	5050
03N/01W-18D01 H	15.0	10-03-67	2.5	12.5	5050
		4-10-68	2.6	12.4	5050
03N/01W-34J01 H	53.0	10-03-67	35.0	18.0	5050
		4-10-68	32.3	20.7	5050
03N/02W-26R01 H	12.0	10-03-67	10.3	1.7	5050
		4-10-68	6.6	5.4	5050
ROUND VALLEY 1-11.00					
22N/12W-04B01 M	1351.0	10-02-67	13.8	1337.2	5050
		4-09-68	6.3	1344.7	5050
22N/12W-06L03 M	1370.0	10-02-67	2.6	1367.4	5050
		4-09-68	-11.5	1381.5	5050
22N/13W-12R01 M	1400.0	10-02-67	24.3	1375.7	5050
		4-09-68	5.9	1394.1	5050
23N/12W-31N01 M	1388.0	10-02-67	7.9	1380.1	5050
		4-09-68	-9.0	1397.0	5050
23N/13W-36C03 M	1410.0	10-02-67	27.2	1382.8	5050
		4-09-68	9.0	1401.0	5050
23N/13W-36Q01 M	1403.0	10-02-67	18.6	1384.4	5050
		4-09-68	1.1	1401.9	5050
LAYTONVILLE VALLEY 1-12.00					
21N/14W-30M01 M	1688.0	10-03-67	17.2	1670.8	5050
		4-09-68	5.6	1682.4	5050
21N/15W-01L02 M	1682.0	10-03-67	(1)	---	5050
		4-09-68	7.5	1674.5	5050
21N/15W-12M02 M	1630.0	10-03-67	16.3	1613.7	5050
		4-09-68	6.9	1623.1	5050
21N/15W-24A01 M	1653.0	10-03-67	12.1	1640.9	5050
		4-09-68	3.5	1649.5	5050
LITTLE LAKE VALLEY 1-13.00					
18N/13W-08L01 M	1340.0	10-03-67	8.5	1331.5	5050
		4-08-68	2.2	1337.8	5050
18N/13W-16M01 M	1380.0	10-03-67	25.3	1354.7	5050
		4-08-68	(4)	---	5050
18N/13W-17J01 M	1370.0	10-03-67	20.7	1349.3	5050
		4-08-68	14.4	1355.6	5050
18N/13W-18E01 M	1365.0	10-03-67	26.2	1338.8	5050
		4-08-68	25.3	1339.7	5050
18N/13W-20H03 M	1385.0	10-03-67	20.3	1364.7	5050
		4-08-68	5.2	1379.8	5050
19N/13W-32F01 M	1347.0	10-03-67	15.5	1331.5	5050
		4-08-68	6.6	1340.4	5050
19N/13W-32L02 M	1350.0	10-03-67	13.0	1337.0	5050
		4-08-68	10.1	1339.9	5050

APPENDIX D

SURFACE WATER QUALITY

INTRODUCTION

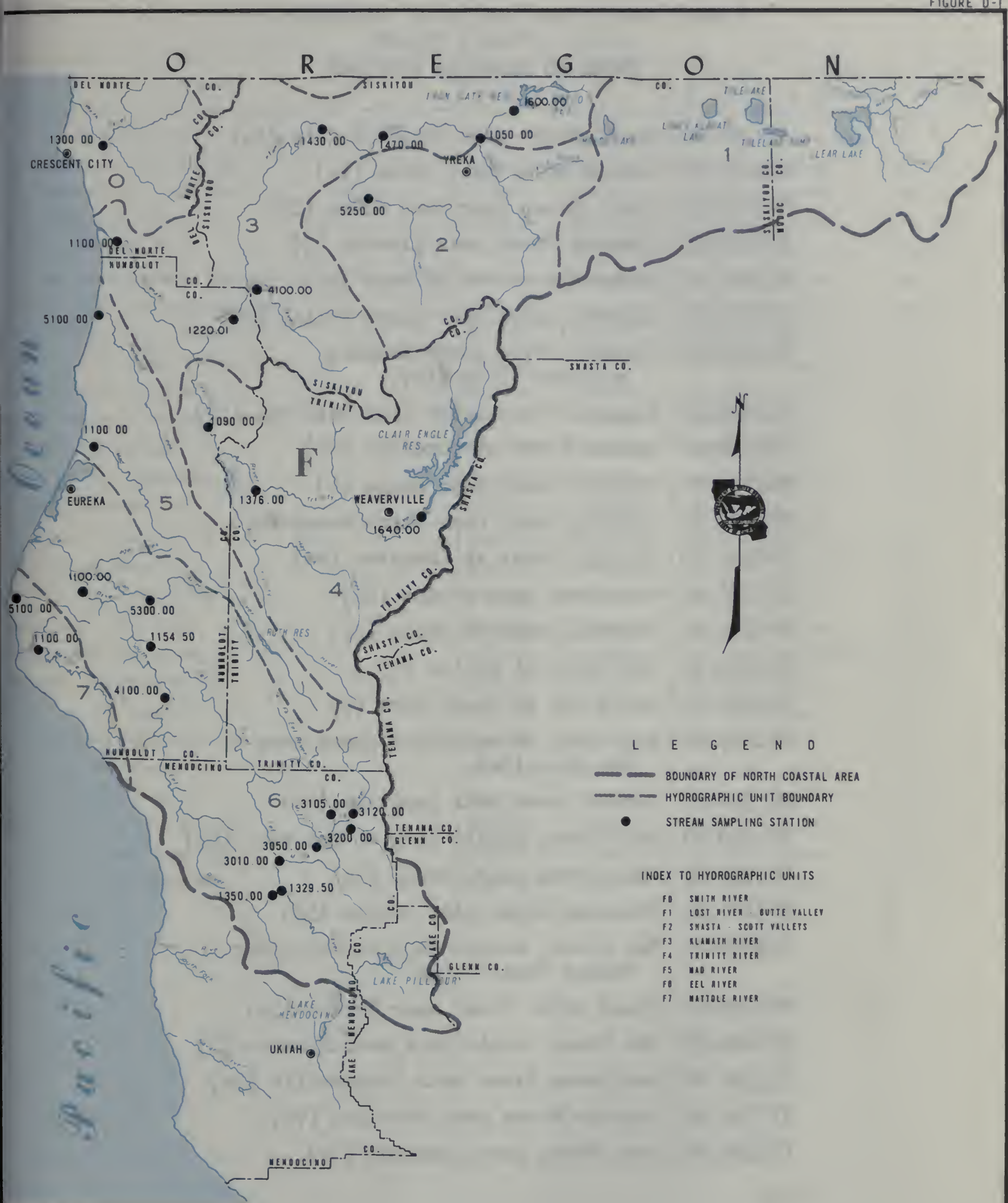
This appendix presents surface water quality data collected during the period from October 1, 1967, through September 30, 1968. The data were collected from 27 stream stations in the North Coastal area.

At the time of field sampling, dissolved oxygen, pH, and temperature measurements are made and gage height and time are noted. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources.

The mineral constituents were determined in accordance with methods presented in the U. S. Geological Survey Water-Supply Paper 1454, "Methods for Collection and Analyses of Water Samples". The analysis for trace elements is in accordance with the U. S. Geological Survey Water-Supply Paper 1540-B, "Concentration Method for the Spectro-Chemical Determination of Minor Elements in Water".

Each station in this appendix has been assigned a station number. The numbering system is described in Appendix B, "Surface Water Measurements". A sequential number (formerly employed) follows each station name for reference.

FIGURE D-1



SURFACE WATER SAMPLING STATIONS

INDEX TO SAMPLING STATIONS

F01300.00	Smith River near Crescent City (3a)
F21050.00	Shasta River near Yreka (1a)
F25250.00	Scott River near Fort Jones (1b)
F31100.00	Klamath River near Klamath (3)
F31220.01	Klamath River at Orleans (2c)
F31430.00	Klamath River near Seiad Valley (2b)
F31470.00	Klamath River above Hamburg Reservoir Site (1c)
F31600.00	Klamath River below Iron Gate Dam (1f)
F34100.00	Salmon River at Somesbar (2a)
F41090.00	Trinity River near Hoopa (4)
F41376.00	Trinity River near Burnt Ranch (4b)
F41640.00	Trinity River at Lewiston (4a)
F51100.00	Mad River near Arcata (6a)
F55100.00	Redwood Creek at Orick (3b)
F61100.00	Eel River at Scotia (6)
F61154.50	Eel River at South Fork (5)
F61329.50	Eel River above Outlet Creek near Dos Rios (5d)
F61350.00	Outlet Creek near Longvale (5b)
F63010.00	Eel River, Middle Fork at Dos Rios (5c)
F63050.00	Mill Creek near Covelo (5e)
F63105.00	Williams Creek near Covelo (5f)
F63120.00	Eel River, Middle Fork at Eel River Ranger Station (5g)
F63200.00	Black Butte River near Covelo (5h)
F64100.00	Eel River, South Fork near Miranda (7)
F65300.00	Van Duzen River near Bridgeville (5a)
F71100.00	Mattole River near Petrolia (7a)
F75100.00	Bear River near Capetown (7b)

TABLE D-I

SAMPLING STATION DATA AND INDEX

North Coastal Area

Station	Station Number	Location a	Beginning of Record	Frequency of Sampling	Analyses on Page
Bear River at Capetown (7b)	F75100.00	01N/03W-13 H	MAY 1964	Semiannually	53, 69
Black Butte River near Covelo (5h)	F63200.00	23N/11W-28 M	NOV. 1964	Monthly	53, 69
Eel River above Outlet Creek (5d)	F61329.50	21N/13W-31 M	APR. 1958	Monthly	54, 67, 69
Eel River at Scotia (6)	F61100.00	02N/01E-31 H	APR. 1951	Monthly	54, 67, 69
Eel River at South Fork (5)	F61154.50	01S/02E-26 H	APR. 1951	Monthly	55, 69
Eel River, Middle Fork above Black Butte River (5g)	F63120.00	23N/11W-28 M	NOV. 1964	Monthly	55, 71
Eel River, Middle Fork at Dos Rios (5c)	F63010.00	21N/13W-06 M	APR. 1958	Monthly	56, 67, 70
Eel River, South Fork near Miranda (7)	F64100.00	03S/04E-30 H	APR. 1951	Monthly	56, 72
Klamath River above Hamburg Reservoir Site (1c)	F31470.00	46N/10W-14 M	DEC. 1958	Bimonthly	57, 69
Klamath River at Orleans (2c)	F31220.01	11N/06E-31 H	JAN. 1964	Monthly	57, 67, 70
Klamath River below Iron Gate Dam (1f)	F31600.00	47N/05W-17 M	DEC. 1961	Monthly	58, 67, 70
Klamath River near Klamath (3)	F31100.00	13N/01E-24 H	APR. 1951	Monthly	58, 67, 70
Klamath River near Seiad Valley (2b)	F31430.00	46N/12W-03 M	DEC. 1958	Bimonthly	59, 67, 70
Mad River near Arcata (6a)	F51100.00	06N/01E-15 H	NOV. 1958	Monthly	59, 67, 70
Mattole River at Petrolia (7a)	F71100.00	02S/02W-11 H	JAN. 1959	Monthly	60, 70
Mill Creek near Covelo (5e)	F63050.00	22N/12W-22 M	FEB. 1965	Monthly	60, 71
Outlet Creek near Longvale (5b)	F61350.00	20N/14W-01 M	MAY 1958	Monthly	61, 71
Redwood Creek at Orick (3b)	F55100.00	10N/01E-04 H	NOV. 1958	Monthly	61, 71
Salmon River at Somesbar (2a)	F34100.00	11N/06E-02 H	NOV. 1958	Semiannually	62, 71
Scott River near Fort Jones (1b)	F25250.00	44N/10W-29 M	DEC. 1958	Monthly	62, 71
Shasta River near Yreka (1a)	F21050.00	46N/07W-24 M	DEC. 1958	Monthly	63, 71
Smith River near Crescent City (3a)	F01300.00	16N/01E-10 H	APR. 1951	Monthly	63, 72
Trinity River at Hoopa (4)	F41090.00	08N/05E-31 H	APR. 1951	Monthly	64, 67, 72
Trinity River at Lewiston (4a)	F41640.00	33N/08E-17 M	APR. 1951	Monthly	64, 72
Trinity River near Burnt Ranch (4b)	F41376.00	05N/07E-19 H	APR. 1958	Bimonthly	65, 72
Van Duzen River near Bridgeville (5a)	F65300.00	01N/02E-12 H	APR. 1958	Monthly	65, 72
Williams Creek near Covelo (5f)	F63105.00	23N/12W-24 M	NOV. 1964	Monthly	66, 72

a - H = Humboldt Base and Meridian
M = Mount Diablo Base and Meridian

TABLE D-2 MINERAL ANALYSES OF SURFACE WATER

An explanation of column headings follows:

The LAB and SAMPLER was the Department of Water Resources whose code is 5050.

TIME - Pacific Standard Time on a 24-hour clock.

GH - The instantaneous gage height in feet above an established datum.

Q - The instantaneous discharge in cubic feet per second (cfs). "E" indicates the value has been estimated.

DO - The dissolved oxygen content in milligrams per liter.

SAT - The percent saturation.

TEMP - Water temperature in degrees Fahrenheit at the time of field sampl

PH LAB & FIELD- Measure of acidity or alkalinity of water.

EC LAB - The electrical conductance in micromhos at 25° Celsius.

EC FIELD - The electrical conductance in micromhos at temperature when sample

TDS - Gravimetric determination of total dissolved solids at 180° Celsiu

SUM - Total dissolved solids determined by addition of analyzed constitu

TH - Total hardness.

NCH - Non-carbonate hardness.

The MINERAL CONSTITUENTS are as follows:

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO_3	- Carbonate	NO_3	- Nitrate
F	- Fluoride	SIO_2	- Silica
HCO_3	- Bicarbonate	SO_4	- Sulfate

TABLE D-2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
F0130000							SMITH RIVER NEAR CRESCENT CITY (3A)													
F01300.00		8.90	10.5	56 F	7.8	150	--	--	2.8	--	0.0	70	--	3.9	--	--	0.0	--	--	67
10/03/67	5050	1300.0	101	13 C	7.5				.12			1.15		.11						10
1030	5050								8			76		7						
F01300.00		7.25	10.8	54 F	8.0	160	--	--	2.7	--	0.0	83	--	3.3	--	--	0.0	--	--	75
11/07/67	5050	373.0	100	12 C	8.0				.12			1.36		.09						7
1045	5050								7			85		5						
F01300.00		16.55	12.2	46 F	8.1	99	--	--	2.4	--	0.0	51	--	4.7	--	--	0.0	--	--	53
12/05/67	5050	15700.0	102	7 C	7.5				.10			.84		.13						11
1205	5050								10			84		13						
F01300.00		12.17	12.6	45 F	8.0	100	--	--	1.6	--	0.0	53	--	2.5	--	--	0.2	--	--	48
01/09/68	5050	5364.0	104	7 C	7.3				.07			.87		.07						5
1120	5050								7			87		7						
F01300.00		14.84	12.6	46 F	8.0	90	--	--	1.5	--	0.0	48	--	3.1	--	--	0.0	--	--	42
02/05/68	5050	6040.0	106	7 C	7.5				.07			.79		.09						3
1700	5050								7			87		10						
F01300.00		11.11	12.0	49 F	8.0	96	--	--	1.6	--	0.0	52	--	1.6	--	--	0.0	--	--	47
03/05/68	5050	3010.0	105	9 C	7.3				.07			.85		.05						5
0715	5050								7			88		5						
F01300.00		10.88	12.2	48 F	8.0	94	--	--	1.6	--	0.0	52	--	2.0	--	--	0.0	--	--	45
04/02/68	5050	2920.0	105	8 C	7.5				.07			.85		.06						3
1010	5050								7			90		6						
F01300.00		8.17	11.4	52 F	8.3	118	9.4	7.9	2.2	0.4	0.0	65	3.4	2.2	0.0	--	0.0	--	72	56
05/07/68	5050	887.0	103	11 C	7.3		.47	.65	.10	.01		1.07	.07	.06					57	3
0640	5050						38	53	8	1		89	6	5						
F01300.00		8.66	10.3	60 F	8.3	119	--	--	1.9	--	0.0	66	--	2.0	--	--	0.0	--	--	56
06/03/68	5050	1220.0	103	15 C	7.8				.08			1.08		.06						2
1530	5050								6			90		5						
F01300.00		7.11	9.4	67 F	8.2	148	--	--	1.8	--	0.0	80	--	2.4	--	--	0.0	--	--	70
07/09/68	5050	418.0	101	19 C	7.8				.08			1.31		.07						5
0955	5050								5			88		4						
F01300.00		6.74	10.2	64 F	8.2	166	--	--	2.7	--	0.0	90	--	2.7	--	--	0.0	--	--	78
08/06/68	5050	319.0	106	17 C	8.2				.12			1.48		.08						4
0800	5050								7			89		4						
F01300.00		6.73	10.7	65 F	7.6	164	9.5	13	2.8	0.9	0.0	96	5.9	2.7	0.0	--	0.0	--	92	78
09/10/68	5050	300.0	113	18 C	8.3		.47	1.07	.12	.02		1.57	.12	.08					82	0
1430	5050						28	64	7	1		89	7	5						
F2105000							SHASTA RIVER NEAR YREKA (1A)													
F21050.00		3.48	10.6	56.0F	8.3	571	--	--	41	--	0.0	309	--	24	--	--	0.4	--	--	206
10/09/67	5050	192.0	108	13.3C	8.4				1.78			5.07		.68						0
1015	5050								31			88		11						
F21050.00		3.50	11.5	52.5F	8.7	513	--	--	38	--	17	287	--	21	--	--	0.4	--	--	193
11/08/67	5050	196.0	106	11.3C	8.5				1.65		.57	4.71		.59						0
1345	5050								32		11	91		11						
F21050.00		3.58	12.3	40.0F	8.5	556	--	--	43	--	10	275	--	26	--	--	0.4	--	--	195
12/12/67	5050	224.0	102	4.4C	8.4				1.87		.33	4.51		.73						0
1315	5050								33		5	81		13						
F21050.00		3.53	13.4	37.0F	8.3	507	--	--	36	--	0.0	269	--	15	--	--	0.5	--	--	184
01/03/68	5050	210.0	106	2.7C	8.4				1.57			4.41		.42						0
1255	5050								30			86		8						
F21050.00		3.65	12.2	43 F	8.5	513	--	--	37	--	11	259	--	19	--	--	0.4	--	--	196
02/13/68	5050	248.0	105	6 C	8.3				1.61		.37	4.25		.54						0
1100	5050								31		7	82		10						
F21050.00		3.63	11.1	47 F	8.6	508	--	--	30	--	8.0	197	--	19	--	--	0.4	--	--	189
03/06/68	5050	242.0	101	8 C	8.4				1.31		.27	3.23		.54						14
1115	5050								25		5	63		10						
F21050.00		3.16	10.2	58 F	8.7	574	--	--	43	--	16	288	--	23	--	--	0.5	--	--	223
04/01/68	5050	103.0	107	14 C	8.4				1.87		.53	4.72		.65						0
1350	5050								32		9	82		11						
F21050.00		2.82	10.2	57 F	8.7	724	43	46	52	3.6	22	378	8.7	30	0.7	--	0.7	--	336	297
05/06/68	5050	45.0	105	13 C	8.4		2.15	3.78	2.26	.09	.73	6.20	.18	.85	.01				392	0
1150	5050						26	46	27	1	9	78	2	11						
F21050.00		3.08	8.8	62 F	8.7	636	--	--	46	--	15	331	--	26	--	--	0.8	--	--	249
06/11/68	5050	87.0	83	16 C	8.4				2.00		.50	5.43		.73						0
0700	5050								31		7	85		11						
F21050.00		2.57	9.8	75 F	9.0	749	--	--	49	--	39	346	--	33	--	--	0.7	--	--	292
07/03/68	5050	15.0	123	23 C	8.4				2.13		1.30	5.67		.93						0
1110	5050								28		17	75		12						
F21050.00		2.49	9.7	79 F	8.7	688	--	--	55	--	21	380	--	39	--	--	0.8	--	--	285
08/06/68	5050	9.4	127	26 C	8.4				2.39		.70	6.23		1.10						0
1400	5050								34		10	90		15						
F21050.00		2.79	9.9	67 F	8.6	632	34	37	50	4.0	19	324	7.9	31	0.4	--	0.7	--	350	238
09/04/68	5050	42.0	115	19 C	8.4		1.70	3.04	2.18	.10	.63	5.31	.16	.87	.01				343	0
1050	5050						24	43	31	1	9	76	2	12						

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAB SAMPLER	G.H. Q	DO SAT	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER F	B	SIO2	TDS SUM	TH NCH
				F2525000					SCOTT RIVER NEAR FORT JONES (13)											
F25250.00		5.05	11.4	60.0F	8.2	297	--	--	5.3	--	0.0	175	--	5.0	--	--	0.0	--	--	145
10/09/67	5050	104.0	125	15.5C	8.2				.23			2.87		.14						2
1330	5050								7			96		4						
F25250.00		5.01	11.6	52 F	8.4	283	--	--	5.1	--	4.0	160	--	4.4	--	--	0.0	--	--	143
11/09/67	5050	91.0	107	11 C	8.1				.22		.13	2.62		.12						6
1145	5050								7		4	92		4						
F25250.00		5.19	12.4	39 F	8.3	253	--	--	5.3	--	0.0	143	--	6.0	--	--	0.0	--	--	120
12/12/67	5050	149.0	103	3 C	7.6				.23			2.35		.17						3
1430	5050								9			92		6						
F25250.00		5.15	12.9	31 F	8.0	241	--	--	3.2	--	0.0	142	--	3.2	--	--	0.0	--	--	122
01/04/68	5050	137.0	97	C	7.3				.14			2.33		.09						6
0800	5050								5			96		3						
F25250.00		6.54	11.5	44 F	7.9	202	--	--	2.4	--	0.0	116	--	1.4	--	--	0.0	--	--	97
02/13/68	5050	676.0	103	6 C	7.6				.10			1.90		.04						2
1530	5050								4			94		1						
F25250.00		7.71	10.8	44 F	8.2	152	--	--	2.2	--	0.0	86	--	1.1	--	--	0.0	--	--	74
03/06/68	5050	1330.0	97	6 C	7.3				.10			1.41		.03						4
1510	5050								6			92		1						
F25250.00		6.93	10.6	46 F	7.8	149	--	--	2.0	--	0.0	86	--	0.5	--	--	0.0	--	--	70
04/02/68	5050	880.0	98	7 C	7.5				.09			1.41		.01						0
0755	5050								6			94								
F25250.00		6.28	10.0	68 F	7.9	171	15	11	2.7	0.9	0.0	95	0.8	2.6	1.2	--	0.0	--	94	82
05/06/68	5050	600.0	120	19 C	7.5		.75	.90	.12	.02		1.56	.02	.07	.02				81	4
1600	5050						42	50	7	1		93	1	4	1					
F25250.00		5.57	9.8	61 F	8.5	212	--	--	3.5	--	2.0	119	--	2.2	--	--	0.1	--	--	108
06/11/68	5050	264.0	90	16 C	7.9				.15		.07	1.95		.06						7
1030	5050								7		3	91		2						
F25250.00		4.31	11.3	76 F	8.7	288	--	--	3.4	--	6.0	145	--	5.2	--	--	0.0	--	--	137
07/03/68	5050	102.0	147	24 C	8.2				.15		.20	2.38		.15						8
1730	5050								5		6	82		5						
F25250.00		3.98	11.3	75 F	8.3	285	--	--	5.7	--	0.0	165	--	4.9	--	--	0.0	--	--	151
08/06/68	5050	44.0	145	23 C	8.0				.25			2.71		.14						16
1255	5050								8			95		4						
F25250.00		3.94	7.0	59 F	7.8	285	30	15	4.4	0.7	0.0	163	7.4	6.0	2.7	--	0.0	--	155	137
09/05/68	5050	42.0	76	14 C	7.4		1.50	1.23	.19	.02		2.67	.15	.17	.04				146	4
0715	5050						51	42	6	1		88	5	6	1					
				F3110000					KLAMATH RIVER NEAR KLAMATH (3)											
F31100.00		4.99	9.1	59 F	7.8	216	22	8.8	12	1.7	0.0	105	18	6.1	1.2	0.1	0.1	17	--	91
10/03/67	5050	4420.0	90	14 C	7.7		1.10	.72	.52	.04		1.72	.37	.17	.02				136	5
0915	5050						46	30	22	2		75	16	7	1					
F31100.00		4.06	10.2	55 F	8.0	221	21	10	11	1.7	0.0	120	13	6.0	1.4	0.1	0.1	17	--	94
11/07/67	5050	2950.0	96	12 C	8.0		1.05	.82	.48	.04		1.97	.27	.17	.02				140	0
0915	5050						44	34	20	2		81	11	7	1					
F31100.00		11.17	11.6	46 F	7.8	140	14	5.9	5.6	1.0	0.0	63	11	4.5	1.4	0.0	0.0	13	--	60
12/05/67	5050	28850.0	97	7 C	7.4		.70	.48	.24	.03		1.03	.23	.13	.02				87	9
1000	5050						48	33	17	2		73	16	9	1					
F31100.00		7.05	12.6	40 F	7.4	167	16	7.3	7.3	1.2	0.0	84	9.0	1.6	3.5	0.1	0.1	16	118	70
01/09/68	5050	8727.0	97	4 C	7.4		.80	.60	.32	.03		1.38	.19	.05	.06				103	1
0920	5050						46	34	18	2		82	11	3	4					
F31100.00		11.03	12.6	46 F	7.5	133	14	6.4	4.2	0.9	0.0	64	17	1.9	0.6	0.0	0.0	14	77	62
02/05/68	5050	28150.0	106	7 C	7.6		.70	.53	.18	.02		1.05	.35	.05	.01				90	10
1340	5050						49	37	13	1		72	24	3	1					
F31100.00		10.90	11.3	51 F	7.9	141	15	6.5	3.8	0.8	0.0	76	7.0	1.4	0.5	0.1	0.0	15	87	64
03/04/68	5050	27500.0	101	10 C	7.6		.75	.53	.17	.02		1.25	.15	.04	.01				87	2
1615	5050						51	36	12	1		86	10	3	1					
F31100.00		9.15	10.8	55 F	7.8	140	15	6.5	3.9	0.9	0.0	74	9.0	1.4	1.3	0.0	0.1	14	--	64
04/02/68	5050	19000.0	101	12 C	7.6		.75	.53	.17	.02		1.21	.19	.04	.02				86	4
0845	5050						51	36	12	1		83	13	3	1					
F31100.00		6.94	10.4	56 F	7.7	145	15	6.6	4.3	0.9	0.0	77	9.0	2.4	0.8	0.0	2.8	12	--	64
05/07/68	5050	8450.0	99	13 C	7.5		.75	.54	.19	.02		1.26	.19	.07	.01				92	1
0800	5050						50	36	13	1		82	12	5	1					
F31100.00		6.38	9.1	64 F	7.7	148	16	6.7	4.5	0.9	0.0	81	9.0	2.6	1.3	0.1	0.0	12	--	68
06/04/68	5050	7050.0	95	17 C	7.7		.80	.55	.20	.02		1.33	.19	.07	.02				93	2
0715	5050						51	35	13	1		83	12	4	1					
F31100.00		5.17	8.4	72 F	8.0	195	20	8.4	7.0	1.4	0.0	100	12	4.0	2.0	0.1	0.0	13	--	84
07/09/68	5050	3440.0	95	22 C	8.0		1.00	.69	.30	.04		1.64	.25	.11	.03				117	2
1145	5050						49	34	15	2		81	12	5	1					
F31100.00		4.67	8.5	70 F	7.9	216	22	9.3	8.6	1.7	0.0	114	9.0	4.6	0.0	0.1	0.0	13	--	94
08/06/68	5050		95	21 C	8.0		1.10	.76	.37	.04		1.87	.19	.13					124	1
0930	5050						48	33	16	2		85	9	6						
F31100.00		4.73	10.0	68 F	8.1	215	21	9.2	10	1.7	0.0	111	14	6.8	1.3	0.2	0.0	15	--	90
09/10/68	5050	2530.0	109	19 C	8.2		1.05	.76	.44	.04		1.82	.29	.19	.02				134	0
1315	5050						46	33	19	2		78	13	8	1					

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / PH FLD	EC LAB / EC FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
							MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE									MILLIGRAMS PER LITER				
F3122001							KLAMATH RIVER AT ORLEANS (2C)													
F31220.01			9.2	61 F	8.0	227	--	--	14	--	0.0	109	--	6.2	--	--	0.0	--	--	80
10/02/67	5050	2268.0	94	16 C	7.8				.61			1.79		.17						0
0935	5050								26			78		7						
F31220.01		5.13	11.5	55 F	8.1	228	--	--	16	--	0.0	110	--	6.5	--	--	0.1	--	--	81
11/06/67	5050	2320.0	110	12 C	8.2				.70			1.80		.18						0
1225	5050								30			78		7						
F31220.01		6.92	12.2	42 F	8.2	193	--	--	12	--	0.0	91	--	4.4	--	--	0.1	--	--	68
12/04/67	5050	5260.0	99	5 C	7.3				.52			1.49		.12						0
1225	5050								26			77		6						
F31220.01		5.78	14.0	37 F	7.8	186	--	--	12	--	0.0	93	--	4.5	--	--	0.1	--	--	65
01/08/68	5050	3510.0	105	2 C	7.6				.52			1.53		.13						0
1540	5050								27			82		6						
F31220.01		10.01	13.4	42 F	8.1	147	--	--	5.0	--	0.0	73	--	2.2	--	--	0.0	--	--	66
02/05/68	5050	12400.0	108	5 C	7.7				.22			1.20		.06						6
1045	5050								14			81		4						
F31220.01		9.92	12.2	48 F	8.1	147	--	--	4.8	--	0.0	74	--	1.1	--	--	0.0	--	--	64
03/04/68	5050	13960.0	107	8 C	7.6				.21			1.21		.03						4
1150	5050								14			82		2						
F31220.01		8.24	11.9	51 F	8.0	142	--	--	4.4	--	0.0	72	--	2.0	--	--	0.1	--	--	62
04/01/68	5050	9425.0	108	10 C	7.8				.19			1.18		.06						3
1145	5050								13			83		4						
F31220.01		6.28	10.5	55 F	8.3	148	14	6.1	5.1	1.1	0.0	73	3.1	2.6	0.1	--	0.0	--	90	60
05/06/68	5050	5270.0	101	12 C	7.7		.70	.50	.22	.03		1.20	.06	.07					68	0
1045	5050						48	34	15	2		90	5	5						
F31220.01		5.64	9.7	63 F	7.9	142	--	--	5.3	--	0.0	73	--	2.4	--	--	0.0	--	--	59
06/03/68	5050	4300.0	98	17 C	7.8				.23			1.20		.07						0
1030	5050								16			84		4						
F31220.01		3.37	8.8	75 F	8.1	195	--	--	7.5	--	0.0	100	--	3.6	--	--	0.1	--	--	79
07/08/68	5050	1850.0	105	23 C	8.0				.33			1.64		.10						0
1250	5050								16			84		5						
F31220.01		3.08	9.7	71 F	8.3	212	--	--	13	--	0.0	107	--	5.0	--	--	0.1	--	--	79
08/05/68	5050	1380.0	111	21 C	8.2				.57			1.75		.14						0
1030	5050								26			82		6						
F31220.01		3.42	9.9	69 F	7.7	216	17	9.1	14	2.4	0.0	109	10	5.3	0.1	--	0.1	--	136	80
09/09/68	5050	1580.0	111	20 C	8.2		.85	.75	.61	.06		1.79	.21	.15					111	0
1210	5050						37	33	27	3		83	10	7						
F3143000							KLAMATH RIVER NEAR SEIAD VALLEY (2B)													
F31430.00			10.6	52 F	8.2	252	--	--	20	--	0.0	118	--	6.5	4.3	--	0.2	--	--	86
11/09/67	5050	2240.0	101	11 C	7.8				.87			1.94		.18	.07					0
0955	5050								34			76		7	2					
F31430.00			13.6	35 F	7.6	226	--	--	17	--	0.0	110	--	4.7	6.4	--	0.1	--	--	76
01/03/68	5050	2400.0	103	1 C	7.5				.74			1.80		.13	.10					0
1545	5050								32			79		5	4					
F31430.00			11.3	45.5F	8.1	203	--	--	10	--	0.0	99	--	4.4	3.2	--	0.1	--	--	76
03/06/68	5050	5570.0	99	7.4C	7.6				.44			1.62		.12	.05					0
1400	5050								21			79		5	2					
F31430.00			11.1	56 F	8.1	189	15	8.9	10	1.7	0.0	94	9.9	4.3	0.4	--	0.1	--	110	74
05/06/68	5050	2410.0	111	13 C	8.4		.75	.73	.44	.04		1.54	.21	.12	.01				96	0
1450	5050						38	37	22	2		82	11	6	1					
F31430.00			10.0	75 F	9.4	223	--	--	15	--	18	78	--	5.6	0.1	--	0.1	--	--	84
07/03/68	5050	1040.0	123	23 C	8.4				.65		.60	1.28		.16						0
1600	5050								29		26	57		7						
F31430.00			10.4	71 F	8.0	225	15	8.9	17	2.6	0.0	110	14	7.4	1.6	--	0.0	--	128	74
09/04/68	5050	1190.0	123	21 C	8.4		.75	.73	.74	.07		1.80	.29	.21	.03				120	0
1530	5050						33	32	32	3		77	12	9	1					
F3147000							KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE (1C)													
F31470.00			9.5	51 F	8.2	263	--	--	22	--	0.0	118	--	6.7	5.1	--	0.1	--	--	86
11/09/67	5050	1976.0	89	10 C	7.6				.96			1.94		.19	.08					0
0820	5050								36			73		7	3					
F31470.00			14.0	35 F	7.8	224	--	--	18	--	0.0	107	--	5.2	6.8	--	0.2	--	--	71
01/03/68	5050	1880.0	105	1 C	7.5				.78			1.75		.15	.11					0
1515	5050								34			78		6	4					
F31470.00			11.3	45 F	8.2	235	--	--	15	--	0.0	107	--	4.0	2.3	--	0.1	--	--	79
03/06/68	5050		92	7 C	7.7				.65			1.75		.11	.04					0
1320	5050								27			74		4	1					
F31470.00			11.4	59 F	8.2	214	15	8.9	16	2.3	0.0	96	18	5.5	0.6	--	0.2	--	125	74
05/06/68	5050		118	14 C	8.4		.75	.73	.70	.06		1.57	.37	.16	.01				114	0
1410	5050						33	33	31	3		74	18	8						
F31470.00			12.3	77 F	9.8	219	--	--	18	--	33	39	--	5.6	0.1	--	0.1	--	--	75
07/03/68	5050		155	24 C	8.4				.78		1.10	.64		.16						0
1445	5050								35		50	29		7						
F31470.00			10.2	70 F	7.7	221	13	8.6	18	2.7	0.0	105	14	7.0	2.3	--	0.1	--	114	68
09/04/68	5050		120	21 C	8.3		.65	.71	.78	.07		1.72	.29	.20	.04				117	0
1430	5050						29	32	35	3		76	13	9	2					

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
							MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE									MILLIGRAMS PER LITER				
F3160000							KLAMATH RIVER BELOW IRON GATE DAM (1F)													
F31600.00			6.0	62 F	8.0	197	--	--	16	--	0.0	88	--	4.0	4.5	--	0.1	--	--	62
10/09/67	5050	1690.0	66	16 C	7.3				.70			1.44		.11	.07					0
1120	5050								35			73		5	3					
F31600.00			5.8	52 F	7.9	231	--	--	21	--	0.0	96	--	5.5	5.5	--	0.1	--	--	69
11/08/67	5050	1760.0	56	11 C	7.2				.91			1.57		.16	.09					0
1445	5050								39			67		6	3					
F31600.00			10.3	41.5F	7.8	217	--	--	20	--	0.0	88	--	5.6	6.1	--	0.1	--	--	59
12/12/67	5050	2844.0	87	5.2C	7.3				.87			1.44		.16	.10					0
1230	5050								40			66		7	4					
F31600.00			11.5	36 F	7.5	181	--	--	15	--	0.0	82	--	2.8	7.6	--	0.1	--	--	52
01/03/68	5050	1670.0	90	2 C	7.3				.65			1.34		.08	.12					0
1345	5050								35			74		4	6					
F31600.00			12.6	40 F	7.6	230	--	--	19	--	0.0	93	--	3.9	6.7	--	0.1	--	--	66
02/13/68	5050	1830.0	104	4 C	7.6				.83			1.53		.11	.11					0
1145	5050								36			66		4	4					
F31600.00			12.8	46 F	7.9	211	--	--	17	--	0.0	88	--	3.8	5.7	--	0.1	--	--	65
03/06/68	5050	2910.0	115	7 C	7.5				.74			1.44		.11	.09					0
1210	5050								35			68		5	4					
F31600.00			9.7	48 F	7.7	225	--	--	17	--	0.0	88	--	1.9	2.6	--	0.1	--	--	71
04/01/68	5050	1320.0	90	8 C	7.5				.74			1.44		.05	.04					0
1510	5050								32			64		2	1					
F31600.00			11.2	58 F	8.0	207	14	7.5	17	2.5	0.0	86	21	5.0	1.0	--	0.1	--	124	66
05/06/68	5050	1020.0	117	14 C	8.4		.70	.62	.74	.06		1.41	.44	.14	.02				110	0
1255	5050						33	29	35	3		70	22	7	1					
F31600.00			9.4	64 F	8.1	177	--	--	14	--	0.0	83	--	3.8	0.9	--	0.1	--	--	55
06/11/68	5050	722.0	91	17 C	8.4				.61			1.36		.11	.01					0
0800	5050								34			76		6						
F31600.00			10.9	69 F	9.2	212	--	--	17	--	13	69	--	4.4	2.3	--	0.1	--	--	65
07/03/68	5050	701.0	120	20 C	8.4				.74		.43	1.13		.12	.04					0
1215	5050								34		20	53		5	1					
F31600.00			8.9	72 F	8.0	229	--	--	17	--	0.0	93	--	4.4	2.0	--	0.1	--	--	62
08/06/68	5050	729.0	109	22 C	8.4				.74			1.53		.12	.03					0
1450	5050								32			66		5	1					
F31600.00			9.6	68 F	7.5	194	13	6.2	15	2.7	0.0	89	14	4.8	3.0	--	0.0	--	131	58
09/04/68	5050	1040.0	113	19 C	8.4		.65	.51	.65	.07		1.46	.29	.14	.05				102	0
1200	5050						35	27	35	4		75	15	7	3					
F3410000							SALMON RIVER AT SOMESBAR (2A)													
F34100.00		4.22	11.6	48 F	8.1	74	10	1.7	1.6	0.5	0.0	40	1.5	1.2	0.1	--	0.0	--	53	32
05/06/68	5050	1600.0	102	8 C	7.4		.50	.14	.07	.01		.66	.03	.03					36	0
1145	5050						69	19	10	1		92	4	4						
F34100.00		2.73	10.0	68 F	7.7	161	21	4.5	3.7	1.6	0.0	82	6.7	2.4	0.0	--	0.0	--	77	71
09/09/68	5050	174.0	111	19 C	8.2		1.05	.37	.16	.04		1.34	.14	.07					80	4
1130	5050						65	23	10	2		86	9	5						
F4109000							TRINITY RIVER NEAR HOOPA (4)													
F41090.00		14.18	8.6	60 F	7.9	224	--	--	4.8	--	0.0	110	--	5.3	1.0	--	0.0	--	--	99
10/02/67	5050	482.0	87	15 C	7.2				.21			1.80		.15	.02					9
1030	5050								9			80		6						
F41090.00		14.50	10.1	58 F	8.0	220	--	--	5.8	--	0.0	109	--	6.7	0.6	--	0.0	--	--	101
11/06/67	5050	735.0	99	14 C	7.4				.25			1.79		.19	.01					12
1125	5050								11			81		8						
F41090.00		17.57	11.4	45 F	7.9	179	--	--	3.9	--	0.0	80	--	4.1	0.4	--	0.1	--	--	82
12/04/67	5050	3744.0	95	7 C	7.5				.17			1.31		.12	.01					17
1125	5050								9			73		6						
F41090.00		15.55	13.2	39 F	8.0	198	--	--	4.1	--	0.0	99	--	4.0	0.6	--	0.0	--	--	94
01/08/68	5050		101	3 C	7.4				.18			1.62		.11	.01					13
1330	5050								9			81		5						
F41090.00		20.67	12.2	43 F	8.2	164	--	--	2.5	--	0.0	88	--	2.4	0.5	--	0.0	--	--	78
02/05/68	5050	9930.0	99	6 C	7.7				.11			1.44		.07	.01					6
0945	5050								6			87		4						
F41090.00		18.42	11.3	49 F	8.1	157	--	--	2.2	--	0.0	84	--	0.0	0.2	--	0.0	--	--	79
03/04/68	5050	5940.0	99	9 C	7.8				.10			1.38								10
1050	5050								6			87								
F41090.00		15.60	10.7	52 F	8.1	158	--	--	2.2	--	0.0	86	--	3.0	0.1	--	0.0	--	--	78
04/01/68	5050	2100.0	98	11 C	7.8				.10			1.41		.08						8
1045	5050								6			89		5						
F41090.00		15.76	10.9	54 F	8.3	164	21	5.5	3.3	0.5	0.0	86	6.2	2.7	0.1	--	0.0	--	100	75
05/06/68	5050	2250.0	102	12 C	7.8		1.05	.45	.14	.01		1.41	.13	.08					81	5
0940	5050						64	27	8	1		87	8	5						
F41090.00		15.04	9.4	64 F	7.8	172	--	--	3.5	--	0.0	88	--	2.8	0.0	--	0.0	--	--	79
06/03/68	5050	1570.0	97	17 C	7.6				.15			1.44		.08						7
0930	5050								8			83		4						
F41090.00		14.09	8.5	75 F	8.4	214	--	--	3.1	--	1.0	107	--	3.9	0.4	--	0.0	--	--	100
07/08/68	5050	874.0	100	23 C	7.3				.13		.03	1.75		.11	.01					11
1145	5050								6		1	81		5						

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER: TDS SUM	TH NCH
F4109000							TRINITY RIVER NEAR HOOPA (4)												CONTINUED	
F41090.00		13.41	9.1	70 F	8.2	231	--	--	5.4	--	0.0	115	--	5.2	0.0	--	0.0	--	--	113
08/05/68	5050	344.0	102	21 C	8.2				.23			1.89		.15						19
0920	5050								9			81		6						
F41090.00		13.48	9.2	69 F	8.3	228	16	16	5.6	1.0	0.0	113	12	5.7	0.0	--	0.0	--	121	105
09/09/68	5050	482.0	102	20 C	8.2		.80	1.32	.24	.03		1.85	.25	.16					112	13
1015	5050						33	55	10	1		82	11	7						
F4137600							TRINITY RIVER NEAR BURNT RANCH (4B)													
F41376.00			10.6	53 F	8.0	161	--	--	5.4	--	0.0	82	--	6.4	--	--	0.0	--	--	69
11/06/67	5050	416.0	100	11 C	7.7				.23			1.34		.18						2
1030	5050								14			83		11						
F41376.00			13.6	37 F	8.0	160	--	--	4.0	--	0.0	80	--	4.5	--	--	0.0	--	--	73
01/08/68	5050		104	2 C	7.5				.17			1.31		.13						8
1210	5050								10			81		8						
F41376.00			11.4	47 F	8.1	148	--	--	2.5	--	0.0	78	--	1.1	0.1	--	0.0	--	--	75
03/04/68	5050	2450.0	100	8 C	7.6				.11			1.28		.03						11
0930	5050								7			86		2						
F41376.00			10.1	53 F	8.2	124	15	4.5	3.1	0.5	0.0	66	1.6	2.8	0.1	--	0.0	--	76	56
05/06/68	5050	970.0	95	11 C	7.5		.75	.37	.13	.01		1.08	.03	.08					60	2
0815	5050						60	29	10	1		91	3	7						
F41376.00			9.1	75 F	8.0	147	--	--	3.0	--	0.0	75	--	4.6	0.2	--	0.0	--	--	64
07/08/68	5050	374.0	109	23 C	8.1				.13			1.23		.13						3
1040	5050								8			83		8						
F41376.00			8.9	70 F	8.2	159	12	9.1	5.2	0.7	0.0	83	2.3	5.8	0.1	--	0.0	--	96	68
09/09/68	5050	312.0	102	21 C	8.1		.60	.75	.23	.02		1.36	.05	.16					76	0
0845	5050						38	47	14	1		87	3	10						
F4164000							TRINITY RIVER AT LEWISTON (4A)													
F41640.00		2.99	10.1	47 F	7.7	96	--	--	2.5	--	0.0	52	--	1.8	0.2	--	0.0	--	--	38
10/02/67	5050	168.0	91	8 C	7.1				.11			.85		.05						0
0700	5050								11			88		5						
F41640.00		3.34	10.7	47 F	7.4	97	--	--	2.5	--	0.0	53	--	2.2	0.0	--	0.0	--	--	42
11/06/67	5050	256.0	97	8 C	7.3				.11			.87		.06						0
0845	5050								11			89		6						
F41640.00		3.22	10.8	42.5F	7.7	95	--	--	2.8	--	0.0	53	--	2.0	0.5	--	0.1	--	--	43
12/04/67	5050	215.0	92	5.8C	7.1				.12			.87		.06	.01					0
0840	5050								12			91		6	1					
F41640.00		2.98	11.8	43 F	7.6	98	--	--	2.9	--	0.0	54	--	2.2	0.5	--	0.0	--	--	43
01/08/68	5050	161.0	101	6 C	7.1				.13			.89		.06	.01					0
1030	5050								13			90		6	1					
F41640.00		2.99	11.6	42 F	7.8	92	--	--	2.0	--	0.0	51	--	1.5	0.2	--	0.0	--	--	39
02/05/68	5050	161.0	98	5 C	7.2				.09			.84		.04						0
0745	5050								9			91		4						
F41640.00		2.98	11.3	46 F	7.7	97	--	--	2.6	--	0.0	53	--	0.0	0.1	--	0.0	--	--	46
03/04/68	5050	153.0	101	7 C	7.3				.11			.87								3
0800	5050								11			89								
F41640.00		2.99	9.8	48 F	7.6	97	--	--	2.2	--	0.0	53	--	1.3	0.0	--	0.1	--	--	44
04/01/68	5050	164.0	90	8 C	7.3				.10			.87		.04						1
0800	5050								10			89		4						
F41640.00		2.97	11.7	44 F	8.1	90	5.5	6.7	2.6	0.4	0.0	50	0.5	1.9	0.1	--	0.0	--	44	41
05/06/68	5050	155.0	101	6 C	7.2		.27	.55	.11	.01		.82	.01	.05					42	0
0655	5050						29	59	12	1		93	1	6						
F41640.00		2.99	10.8	46 F	7.6	90	--	--	2.3	--	0.0	50	--	1.4	0.1	--	0.0	--	--	40
06/03/68	5050	157.0	85	7 C	7.3				.10			.82		.04						0
0625	5050								11			91		4						
F41640.00		2.98	10.8	47 F	8.1	89	--	--	1.7	--	0.0	50	--	1.1	--	--	--	--	--	40
07/08/68	5050	150.0	98	8 C	7.3				.07			.82		.03						0
0825	5050								7			92		3						
F41640.00		2.98	10.7	47 F	7.9	92	--	--	2.5	--	0.0	52	--	1.5	0.0	--	0.0	--	--	43
08/05/68	5050	158.0	97	8 C	7.1				.11			.85		.04						1
0650	5050								11			92		4						
F41640.00		3.20	10.2	52 F	8.4	91	5.2	6.6	2.5	0.5	0.0	51	0.0	1.5	0.0	--	0.0	--	76	40
09/09/68	5050	203.0	98	11 C	7.2		.26	.54	.11	.01		.84		.04					41	0
0710	5050						28	59	12	1		95		5						
F5110000							MAD RIVER AT ARCATA (6A)													
F51100.00		4.40	9.4	60 F	8.0	198	--	--	4.8	--	0.0	101	--	2.8	--	--	0.0	--	--	89
10/02/67	5050	115.0	94	15 C	8.0				.21			1.66		.08						6
1220	5050								10			83		4						
F51100.00		4.59	10.4	61 F	8.1	190	--	--	5.6	--	0.0	97	--	3.3	--	--	0.1	--	--	86
11/06/67	5050	98.0	105	16 C	8.2				.24			1.59		.09						7
1450	5050								12			83		4						
F51100.00		7.40	11.1	48 F	7.7	121	--	--	4.2	--	0.0	50	--	4.0	--	--	0.1	--	--	55
12/04/67	5050	1540.0	96	8 C	7.5				.18			.82		.11						14
1500	5050								14			67		9						

TABLE D-2(Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
							MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER			
				F5110000					MAD RIVER AT ARCATA (6A)									CONTINUED		
F51100.00		5.07	12.2 44	F	7.8	162	--	--	4.3	--	0.0	76	--	3.7	--	--	0.1	--	--	72
01/08/68	5050	313.0	99 6	C	7.5				.19			1.25		.10						10
1650	5050								11			77		6						
F51100.00		8.45	12.5 45	F	8.0	105	--	--	2.6	--	0.0	50	--	2.2	--	--	0.0	--	--	46
02/05/68	5050	3460.0	103 7	C	7.6				.11			.82		.06						5
1315	5050								10			78		5						
F51100.00		6.67	10.9 53	F	8.0	123	--	--	2.8	--	0.0	60	--	1.1	--	--	0.1	--	--	55
03/04/68	5050	1330.0	100 11	C	7.5				.12			.98		.03						6
1415	5050								9			79		2						
F51100.00		6.26	10.6 53	F	7.8	124	--	--	3.0	--	0.0	59	--	3.0	--	--	0.1	--	--	54
04/01/68	5050	1160.0	97 11	C	7.4				.13			.97		.08						6
1415	5050								10			78		6						
F51100.00		4.57	10.3 64	F	8.5	200	30	3.6	4.9	0.8	3.0	93	9.5	3.5	0.2	--	0.0	--	113	90
05/06/68	5050	130.0	107 17	C	8.0		1.50	.30	.21	.02	.10	1.53	.20	.10					101	9
1415	5050						74	15	10	1	5	79	10	5						
F51100.00		4.10	10.0 63	F	8.0	210	--	--	5.0	--	0.0	104	--	3.1	--	--	0.0	--	--	94
06/03/68	5050	66.0	103 17	C	8.0				.22			1.71		.09						9
1245	5050								10			81		4						
F51100.00		3.23	9.6 71	F	8.3	234	--	--	3.9	--	0.0	120	--	2.9	--	--	0.1	--	--	108
07/08/68	5050	16.0	108 21	C	8.0				.17			1.97		.08						10
1555	5050								7			84		3						
F51100.00		3.46	10.4 69	F	8.3	224	--	--	5.4	--	0.0	117	--	2.7	--	--	0.0	--	--	102
08/05/68	5050	27.0	115 20	C	8.3				.23			1.92		.08						6
1310	5050								10			85		3						
F51100.00		3.45	10.2 69	F	7.8	226	33	3.5	5.4	--	0.0	119	13	3.0	0.1	--	0.0	--	108	97
09/10/68	5050	19.0	112 20	C	8.2		1.65	.29	.23			1.95	.27	.08					116	0
1630	5050						76	13	11			85	12	3						
				F5510000					REDWOOD CREEK AT ORICK (3B)											
F55100.00		5.65	9.4 56	F	7.7	212	--	--	6.0	--	0.0	78	--	7.7	--	--	0.0	--	--	89
10/03/67	5050	107.0	89 13	C	7.3				.26			1.28		.22						25
0830	5050								12			60		10						
F55100.00			10.0 55	F	7.8	217	--	--	6.0	--	0.0	83	--	6.8	--	--	0.0	--	--	92
11/07/67	5050	39.0	94 12	C	7.4				.26			1.36		.19						24
0845	5050								11			62		8						
F55100.00		9.39	11.5 46	F	7.4	104	--	--	4.1	--	0.0	39	--	5.1	--	--	0.2	--	--	43
12/05/67	5050	4736.0	96 7	C	7.5				.18			.64		.14						11
0920	5050								17			61		13						
F55100.00		6.25	11.8 44	F	7.7	136	--	--	3.9	--	0.0	50	--	4.6	--	--	0.0	--	--	52
01/09/68	5050	325.0	96 6	C	7.3				.17			.82		.13						11
0830	5050								12			60		9						
F55100.00		7.59	11.8 47	F	7.8	91	--	--	2.6	--	0.0	37	--	4.7	--	--	0.0	--	--	33
02/05/68	5050	1490.0	100 8	C	7.3				.11			.61		.13						3
1500	5050								12			67		14						
F55100.00		7.03	10.6 53	F	7.7	98	--	--	2.8	--	0.0	40	--	3.2	--	--	0.0	--	--	45
03/04/68	5050	1070.0	97 11	C	7.3				.12			.66		.09						12
1515	5050								12			67		9						
F55100.00		6.90	10.8 51	F	7.3	101	--	--	2.8	--	0.0	42	--	3.0	--	--	0.1	--	--	41
04/02/68	5050	940.0	96 10	C	7.3				.12			.69		.08						7
0800	5050								11			68		7						
F55100.00		5.82	10.2 62	F	8.3	140	22	1.0	4.2	0.6	0.0	60	8.2	4.1	0.1	--	0.0	--	86	59
05/06/68	5050	201.0	104 16	C	7.4		1.10	.08	.18	.02		.98	.17	.12					70	10
1510	5050						80	6	13	1		77	13	9						
F55100.00		5.66	10.0 59	F	8.0	150	--	--	4.3	--	0.0	63	--	4.1	--	--	0.0	--	--	63
06/04/68	5050	198.0	99 14	C	7.4				.19			1.03		.12						12
0800	5050								12			68		8						
F55100.00		5.06	9.8 67	F	8.0	171	--	--	3.8	--	0.0	74	--	4.9	--	--	0.0	--	--	72
07/09/68	5050	54.0	106 19	C	7.3				.17			1.21		.14						12
1220	5050								9			70		8						
F55100.00		4.85	10.3 71	F	8.1	173	--	--	5.8	--	0.0	73	--	5.9	--	--	0.0	--	--	75
08/05/68	5050	26.4	116 21	C	7.5				.25			1.20		.17						15
1445	5050								14			69		9						
F55100.00		4.95	12.6 65	F	8.1	185	25	3.3	6.0	0.9	0.0	72	17	5.7	0.0	--	0.0	--	109	76
09/09/68	5050	52.5	133 18	C	8.1		1.25	.27	.26	.02		1.18	.35	.16					93	17
1415	5050						69	15	14	1		70	21	9						
				F6110000					EEL RIVER AT SCOTIA (6)											
F61100.00		9.54	9.3 55	F	8.2	333	45	12	9.2	1.5	0.0	170	38	7.6	0.4	0.1	0.1	11	--	162
10/04/67	5050	722.0	87 12	C	8.2		2.25	.99	.40	.04		2.79	.79	.21	.01				208	23
0740	5050						61	27	11	1		73	21	6						
F61100.00		8.66	9.1 61	F	8.1	353	48	14	9.5	1.4	0.0	176	33	9.1	0.4	0.2	0.0	9.2	--	178
11/08/67	5050	245.0	92 16	C	7.9		2.40	1.15	.41	.04		2.89	.69	.26	.01				211	34
1000	5050						60	29	10	1		75	18	7						
F61100.00		16.18	11.3 46	F	7.9	144	18	4.8	4.5	0.9	0.0	64	15	4.2	2.3	0.1	0.1	8.4	--	64
12/06/67	5050	18000.0	95 7	C	7.6		.90	.39	.20	.02		1.05	.31	.12	.04				90	12
0910	5050						60	26	13	1		69	20	8	3					

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS / SUM	TH / NCH
F6110000									EEL RIVER AT SCOTIA (6)									CONTINUED		
F61100.00		20.76	11.4 46	F	7.2	107	13	5.2	2.0	2.7	0.0	48	8.0	2.8	3.0	0.2	0.1	8.7	105	54
01/10/68	5050	49100.0	95 7	C	7.8		.65	.43	.09	.07		.79	.17	.08	.05				69	15
0930	5050						52	35	7	6		72	16	7	5					
F61100.00		15.71	11.6 52	F	7.7	136	16	4.9	4.6	1.1	0.0	68	9.0	2.1	0.6	0.1	0.0	11	--	60
02/06/68	5050	19550.0	105 11	C	7.6		.80	.40	.20	.03		1.12	.19	.06	.01				83	4
1430	5050						56	28	14	2		81	14	4	1					
F61100.00		12.85	10.6 56	F	7.9	169	20	6.2	4.8	0.9	0.0	87	11	2.4	0.5	0.1	0.0	11	--	76
03/05/68	5050	6350.0	101 13	C	7.8		1.00	.51	.21	.02		1.43	.23	.07	.01				100	5
1500	5050						57	29	12	1		82	13	4	1					
F61100.00		12.17	10.7 53	F	7.9	169	21	6.1	5.1	1.0	0.0	87	13	1.6	1.4	0.1	0.6	10	--	78
04/03/68	5050	4690.0	98 11	C	7.7		1.05	.50	.22	.03		1.43	.27	.05	.02				103	7
0915	5050						58	28	12	2		81	15	3	1					
F61100.00		10.33	10.2 61	F	8.1	226	28	8.0	6.4	1.0	0.0	120	17	3.5	0.8	0.1	1.1	10	--	103
05/08/68	5050	1230.0	103 16	C	8.0		1.40	.66	.28	.03		1.97	.35	.10	.01				135	5
0915	5050						59	28	12	1		81	14	4						
F61100.00		9.86	9.9 69	F	8.1	250	31	8.9	7.4	1.2	0.0	132	18	4.2	0.7	0.2	0.5	7.3	--	114
04/04/68	5050	764.0	109 20	C	8.2		1.55	.73	.32	.03		2.16	.37	.12	.01				144	6
1415	5050						59	28	12	1		81	14	5						
F61100.00		8.92	8.7 69	F	8.1	310	40	11	9.3	1.5	0.0	164	21	6.2	0.9	0.1	0.2	7.8	--	145
07/10/68	5050	226.0	96 20	C	8.2		2.00	.90	.40	.04		2.69	.44	.17	.01				178	11
0845	5050						60	27	12	1		81	13	5						
F61100.00		8.74	11.5 70	F	8.3	316	38	12	10	1.6	2.0	163	22	6.2	0.0	0.2	0.0	7.5	--	145
08/07/68	5050	168.0	128 21	C	8.4		1.90	.99	.44	.04	.07	2.67	.46	.17					179	8
0930	5050						56	29	13	1	2	79	14	5						
F61100.00		8.66	9.8 67	F	8.3	334	41	13	10	1.6	2.0	165	26	11	0.2	0.2	0.1	8.3	--	156
09/11/68	5050	125.0	106 19	C	8.2		2.05	1.07	.44	.04	.07	2.71	.54	.31					194	17
0915	5050						57	30	12	1	2	75	15	9						
F6115450									EEL RIVER AT SOUTH FORK (5)											
F61154.50			9.1 61	F	8.2	321	--	--	8.4	--	0.0	146	--	6.7	--	--	0.1	--	--	146
10/04/67	5050	122.0	93 16	C	8.2				.37			2.39		.19						27
0820	5050								11			74		5						
F61154.50			9.2 62	F	8.2	373	--	--	9.0	--	0.0	156	--	8.8	--	--	0.2	--	--	162
11/08/67	5050	8.8	95 16	C	7.7				.39			2.56		.25						34
1045	5050								10			68		6						
F61154.50			11.8 45	F	8.1	141	--	--	4.3	--	0.0	65	--	3.5	--	--	0.1	--	--	63
12/06/67	5050	7100.0	98 7	C	7.8				.19			1.07		.10						10
1000	5050								13			75		7						
F61154.50			12.1 45	F	7.8	119	--	--	4.1	--	0.0	64	--	3.0	--	--	0.3	--	--	63
01/10/68	5050	1290.0	101 7	C	8.1				.18			1.05		.08						11
1010	5050								15			88		6						
F61154.50			11.8 47	F	8.2	142	--	--	3.2	--	0.0	73	--	1.6	--	--	0.1	--	--	63
02/07/68	5050	10150.0	101 8	C	7.8				.14			1.20		.05						3
0815	5050								9			84		3						
F61154.50			11.0 51	F	8.1	170	--	--	3.9	--	0.0	84	--	0.0	--	--	0.1	--	--	81
03/06/68	5050	4100.0	99 10	C	7.6				.17			1.38								12
0750	5050								10			81								
F61154.50			10.8 54	F	8.1	170	--	--	3.8	--	0.0	84	--	2.8	--	--	0.2	--	--	78
04/03/68	5050	2985.0	101 12	C	7.9				.17			1.38		.08						9
1015	5050								10			81		4						
F61154.50			9.8 62	F	8.5	217	30	5.8	8.3	1.0	4.0	100	15	7.4	0.0	--	0.1	--	124	99
05/08/68	5050	725.0	100 16	C	7.8		1.50	.48	.36	.03	.13	1.64	.31	.21					121	11
1030	5050						63	20	15	1	6	72	14	9						
F61154.50			9.1 64	F	8.3	249	--	--	6.1	--	0.0	122	--	3.3	--	--	0.1	--	--	113
06/05/68	5050	372.0	94 17	C	8.0				.27			2.00		.09						13
1030	5050								10			80		3						
F61154.50			8.6 72	F	8.2	305	--	--	6.4	--	0.0	147	--	4.6	--	--	0.2	--	--	140
07/10/68	5050	79.0	99 22	C	7.9				.28			2.41		.13						20
1040	5050								9			79		4						
F61154.50			8.1 68	F	8.3	338	--	--	9.2	--	0.0	162	--	5.6	--	--	0.1	--	--	158
08/07/68	5050	83.0	89 19	C	7.9				.40			2.66		.16						25
1030	5050								11			78		4						
F61154.50			7.9 67	F	8.1	369	43	14	9.8	1.6	0.0	158	38	7.4	0.0	--	0.1	--	194	163
09/11/68	5050	61.0	86 19	C	8.0		2.15	1.15	.43	.04		2.59	.79	.21					191	34
1030	5050						57	31	11	1		72	22	6						
F6132950									EEL RIVER ABOVE OUTLET CREEK (5D)											
F61329.50			9.6 65	F	8.2	270	--	--	12	--	0.0	116	--	8.4	0.4	--	0.4	--	--	112
10/04/67	5050	81.0	104 18	C	8.2				.52			1.90		.24	.01					17
1100	5050								19			70		8						
F61329.50			10.3 63	F	8.2	276	--	--	12	--	0.0	128	--	9.2	0.8	--	0.4	--	--	120
11/08/67	5050	8.6	109 17	C	8.2				.52			2.10		.26	.01					15
1350	5050								18			76		9						
F61329.50			11.7 43	F	7.9	144	--	--	5.7	--	0.0	66	--	4.1	1.6	--	0.2	--	--	62
12/05/67	5050	680.0	97 6	C	7.4				.25			1.08		.12	.03					8
1310	5050								17			75		8	2					

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
					F6132950				EEL RIVER ABOVE OUTLET CREEK (5D)									CONTINUED		
F61329.50		5.62	11.6 44	F	7.6	97	--	--	3.9	--	0.0	47	--	3.1	1.6	--	0.3	--	--	31
01/10/68	5050	1500.0	97 6	C	7.4				.17			.77		.09	.03					0
1315	5050								17			79		9	3					
F61329.50		6.37	11.7 45	F	8.0	128	--	--	3.4	--	0.0	65	--	2.4	0.9	--	0.1	--	--	55
02/07/68	5050	2130.0	100 7	C	7.5				.15			1.07		.07	.01					2
1130	5050								11			83		5						
F61329.50		4.14	10.8 51	F	8.1	149	--	--	3.8	--	0.0	74	--	1.1	0.2	--	0.2	--	--	68
03/06/68	5050	544.0	99 10	C	7.8				.17			1.21		.03						6
1445	5050								11			81		2						
F61329.50		3.69	10.4 53	F	8.2	166	--	--	4.2	--	0.0	84	--	3.1	0.0	--	0.2	--	--	78
04/04/68	5050	258.0	98 11	C	7.8				.18			1.38		.09						9
0745	5050								10			83		5						
F61329.50		3.08	9.7 70	F	8.6	239	29	8.1	8.8	1.1	4.0	111	15	4.2	0.0	--	0.3	--	137	106
05/08/68	5050	53.0	111 21	C	8.3		1.45	.67	.38	.03	.13	1.82	.33	.12					126	9
1330	5050						57	26	15	1	5	76	14	5						
F61329.50		2.99	9.8 66	F	8.3	232	--	--	8.6	--	0.0	109	--	4.2	0.0	--	0.4	--	--	97
06/05/68	5050	33.0	102 18	C	8.4				.37			1.79		.12						8
1415	5050								15			77		5						
F61329.50		2.80	9.4 85	F	8.1	260	--	--	8.6	--	0.0	120	--	4.8	0.0	--	0.5	--	--	107
07/10/68	5050	7.6	126 29	C	8.4				.37			1.97		.14						9
1655	5050								14			75		5						
F61329.50		2.29	10.5 81	F	8.2	250	--	--	12	--	0.0	104	--	6.1	0.1	--	0.5	--	--	99
08/07/68	5050	5.8	134 27	C	8.4				.52			1.71		.17						14
1630	5050								20			68		6						
F61329.50		2.72	8.5 69	F	8.4	272	28	9.5	12	1.6	0.0	111	29	7.7	0.0	--	0.6	--	152	109
09/12/68	5050		97 20	C	8.2		1.40	.78	.52	.04		1.82	.60	.22					143	18
0915	5050						51	28	19	1		69	23	8						
					F6135000				OUTLET CREEK NEAR LONGVALE (5B)											
F61350.00		2.67	9.2 61	F	8.0	377	--	--	20	--	0.0	150	--	34	--	--	2.7	--	--	136
10/04/67	5050	14.6	95 16	C	8.0				.87			2.46		.96						13
1045	5050								23			65		25						
F61350.00		2.41	10.0 63	F	8.3	362	--	--	19	--	0.0	156	--	26	--	--	2.3	--	--	135
11/08/67	5050	1.6	106 17	C	8.1				.83			2.56		.73						7
1335	5050								22			70		20						
F61350.00		5.07	11.5 44	F	7.6	101	--	--	5.0	--	0.0	45	--	5.1	--	--	0.1	--	--	43
12/06/67	5050	783.0	96 6	C	7.0				.22			.74		.14						6
1240	5050								21			73		13						
F61350.00		7.34	11.6 44	F	7.3	68	--	--	3.4	--	0.0	29	--	4.0	--	--	0.2	--	--	31
01/10/68	5050	3240.0	97 6	C	7.5				.15			.48		.11						7
1300	5050								22			70		16						
F61350.00		4.46	11.3 48	F	7.9	113	--	--	4.0	--	0.0	55	--	4.0	--	--	0.2	--	--	44
02/07/68	5050	352.0	100 8	C	7.3				.17			.90		.11						0
1100	5050								15			79		9						
F61350.00		3.86	10.9 52	F	8.2	140	--	--	5.1	--	0.0	69	--	3.2	--	--	0.2	--	--	57
03/06/68	5050	194.0	102 11	C	7.8				.22			1.13		.09						1
1515	5050								15			80		6						
F61350.00		3.52	9.9 54	F	8.0	153	--	--	5.5	--	0.0	100	--	4.9	--	--	0.3	--	--	68
04/04/68	5050	125.0	95 12	C	7.6				.24			1.64		.14						0
0715	5050								15			107		9						
F61350.00		2.94	10.0 67	F	8.5	224	24	7.8	10	1.1	4.0	104	5.6	8.2	0.0	--	0.7	--	124	92
05/08/68	5050	24.0	111 19	C	8.1		1.20	.64	.44	.03	.13	1.71	.12	.23					112	0
1315	5050						52	28	19	1	6	78	5	11						
F61350.00		2.77	9.9 65	F	8.3	242	--	--	11	--	0.0	122	--	8.8	--	--	0.9	--	--	98
06/05/68	5050	12.0	101 18	C	8.3				.48			2.00		.25						0
1345	5050								19			82		10						
F61350.00		2.41	8.8 81	F	8.3	285	--	--	14	--	0.0	135	--	15	--	--	1.4	--	--	114
07/10/68	5050	1.5	113 27	C	8.3				.61			2.21		.42						4
1720	5050								21			77		14						
F61350.00		2.32	10.2 84	F	8.3	293	--	--	16	--	0.0	128	--	20	--	--	1.7	--	--	110
08/07/68	5050	.6	132 28	C	8.4				.70			2.10		.56						5
1645	5050								23			71		19						
F61350.00		2.40	8.2 68	F	8.4	361	31	13	20	1.5	--	149	10	28	0.2	--	2.9	--	177	130
09/12/68	5050	1.4	92 19	C	8.2		1.55	1.07	.87	.04		2.44	.21	.79					180	8
0940	5050						44	30	25	1		71	6	23						
					F6301000				EEL RIVER, MIDDLE FORK, AT DDS RIDS (5C)											
F63010.00			9.5 62	F	8.4	373	--	--	10	--	1.0	122	--	15	0.5	--	0.2	--	--	157
10/04/67	5050	123.0	100 16	C	8.2				.44		.03	2.00		.42	.01					56
1130	5050								11			53		11						
F63010.00			10.5 63	F	8.1	387	--	--	13	--	0.0	133	--	16	--	--	0.2	--	--	162
11/08/67	5050	86.0	112 17	C	8.4				.57			2.18		.45						53
1415	5050								14			56		11						
F63010.00			12.3 41	F	8.0	188	--	--	4.9	--	0.0	80	--	3.6	1.3	--	0.1	--	--	86
12/06/67	5050	1350.0	99 4	C	7.5				.21			1.31		.10	.02					21
1330	5050								11			69		5	1					

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TDS SUM	TH NCH
				F6301000			EEL RIVER, MIDDLE FORK, AT DOS RIOS (5C)										CONTINUED			
F63010.00			12.0	42 F	7.9	110	--	--	2.6	--	0.0	58	--	2.0	2.1	--	0.2	--	--	50
01/10/68	5050	9110.0	98	5 C	7.9				.11			.95		.06	.03					3
1345	5050								10			86		5	2					
F63010.00			12.3	44 F	8.4	142	--	--	2.8	--	2.0	67	--	1.6	0.6	--	0.1	--	--	63
02/07/68	5050	3980.0	103	6 C	7.8				.12		.07	1.10		.05	.01					5
1200	5050								8		4	77		3						
F63010.00			11.3	49 F	8.1	159	--	--	3.2	--	0.0	78	--	1.1	0.1	--	0.1	--	--	73
03/06/68	5050	1340.0	101	9 C	8.0				.14			1.28		.03						9
1100	5050								8			80		1						
F63010.00			11.0	49 F	8.2	159	--	--	3.1	--	0.0	80	--	1.9	--	--	0.1	--	--	73
04/04/68	5050	1280.0	99	9 C	8.2				.13			1.31		.05						8
0815	5050								8			82		3						
F63010.00		9.65	10.0	57 F	8.4	182	25	4.7	4.4	0.9	2.0	84	12	2.5	0.0	--	0.0	--	107	82
05/09/68	5050	435.0	99	13 C	7.9		1.25	.39	.19	.02	.07	1.38	.25	.07					93	10
0745	5050						68	21	10	1	4	78	14	4						
F63010.00		9.05	9.6	63 F	8.2	221	--	--	5.1	--	0.0	105	--	3.3	0.0	--	0.1	--	--	100
06/05/68	5050	220.0	96	17 C	8.2				.22			1.72		.09						14
1445	5050								9			77		4						
F63010.00		8.01	8.8	83 F	8.3	310	--	--	6.5	--	0.0	130	--	7.7	0.0	--	0.2	--	--	139
07/10/68	5050	47.0	115	28 C	8.2				.28			2.13		.22						33
1355	5050								9			68		7						
F63010.00		7.56	9.5	82 F	8.3	325	--	--	10	--	0.0	115	--	12	0.0	--	0.2	--	--	146
08/07/68	5050	15.0	123	27 C	8.4				.44			1.89		.34						52
1600	5050								13			58		10						
F63010.00		7.57	9.0	69 F	8.4	340	39	11	12	1.5	0.0	110	52	13	0.0	--	0.2	--	202	142
09/12/68	5050	19.0	102	20 C	8.2		1.95	.90	.52	.04		1.80	1.08	.37					183	52
0830	5050						57	26	15	1		55	33	11						
				F6305000			MILL CREEK NEAR COVELO (5E)													
F63050.00			12.2	41 F	7.9	155	--	--	5.5	--	0.0	70	--	4.0	1.3	--	0.2	--	--	66
12/06/67	5050	81.0	99	4 C	7.3				.24			1.15		.11	.02					9
1420	5050								15			74		7	1					
F63050.00			11.4	44 F	7.7	104	--	--	3.6	--	0.0	50	--	2.7	1.4	--	0.2	--	--	44
01/10/68	5050	725.0	97	6 C	7.4				.16			.82		.08	.02					3
1430	5050								15			78		7	1					
F63050.00			11.4	47 F	8.2	148	--	--	3.8	--	0.0	76	--	3.1	0.6	--	0.1	--	--	64
02/07/68	5050	291.0	101	8 C	7.4				.17			1.25		.09	.01					2
1300	5050								11			84		6						
F63050.00			10.7	51 F	8.0	233	--	--	5.9	--	0.0	124	--	2.7	0.5	--	0.1	--	--	105
03/06/68	5050	144.0	100	10 C	8.0				.26			2.03		.08	.01					4
1200	5050								11			87		3						
F63050.00			10.8	59 F	8.5	254	--	--	6.2	--	4.0	137	--	3.5	--	--	0.2	--	--	120
04/04/68	5050	60.0	111	14 C	8.2				.27		.13	2.25		.10						1
1300	5050								10		5	88		3						
F63050.00			8.9	59 F	8.6	375	36	19	10	1.4	6.0	195	11	5.8	0.4	--	0.1	--	186	170
05/09/68	5050	7.6	91	14 C	7.8		1.80	1.56	.44	.04	.20	3.20	.23	.16	.01				185	0
0845	5050						47	41	11	1	5	84	6	4						
F63050.00			8.5	62 F	8.5	388	--	--	11	--	5.0	208	--	4.5	0.0	--	0.1	--	--	178
06/06/68	5050	3.1	93	16 C	7.8				.48		.17	3.41		.13						0
0900	5050								12		4	87		3						
				F6310500			WILLIAMS CREEK NEAR COVELO (5F)													
F63105.00		1.61	9.8	66 F	8.4	290	--	--	5.1	--	2.0	150	--	3.1	0.0	--	0.1	--	--	140
10/04/67	5050	4.4	110	18 C	8.2				.22		.07	2.46		.09						14
1200	5050								7		2	84		3						
F63105.00		1.43	10.5	62 F	8.5	305	--	--	5.2	--	5.0	156	--	3.6	--	--	0.0	--	--	153
11/08/67	5050	.3	113	16 C	8.4				.23		.17	2.56		.10						17
1530	5050								7		5	83		3						
F63105.00		2.58	11.7	42.5F	8.0	142	--	--	2.9	--	0.0	66	--	1.6	0.4	--	0.2	--	--	64
12/06/67	5050	51.0	98	5.8C	7.5				.13			1.08		.05	.01					10
1545	5050								9			76		3						
F63105.00		3.46	11.8	42 F	8.0	90	--	--	2.3	--	0.0	44	--	1.4	0.7	--	0.1	--	--	40
01/10/68	5050	166.0	98	5 C	7.5				.10			.72		.04	.01					4
1515	5050								11			80		4	1					
F63105.00		2.40	11.1	47 F	7.8	96	--	--	1.9	--	0.0	46	--	1.5	0.3	--	0.0	--	--	45
02/07/68	5050	38.0	99	8 C	7.5				.08			.75		.04						8
1445	5050								8			78		4						
F63105.00		2.45	10.8	49 F	8.0	126	--	--	2.4	--	0.0	62	--	0.0	0.0	--	0.0	--	--	59
03/06/68	5050	59.0	99	9 C	7.9				.10			1.02								8
1230	5050								7			80								
F63105.00		2.39	11.1	48 F	8.0	121	--	--	2.2	--	0.0	61	--	2.0	0.0	--	0.1	--	--	55
04/04/68	5050	61.0	101	8 C	7.8				.10			1.00		.06						5
0930	5050								8			82		4						
F63105.00		1.98	10.1	57 F	8.4	165	21	6.4	3.3	0.7	2.0	83	9.9	1.6	0.0	--	0.0	--	94	79
05/09/68	5050	13.0	102	13 C	8.0		1.05	.53	.14	.02	.07	1.36	.21	.05					86	8
0930	5050						60	30	8	1	4	80	12	3						

TABLE D-2(Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAB SAMPLER	G.H. Q	DO SAT	TEMP	PH LAB FLD	EC LAB FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
							MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER			
F6310500							WILLIAMS CREEK NEAR COVELO (5F)										CONTINUED			
F63105.00		1.89	10.0 60	F	8.3	186	--	--	3.3	--	0.0	96	--	1.6	0.0	--	0.0	--	--	87
06/06/68	5050	8.8	95 15	C	8.2				.14			1.57		.05						9
0930	5050								7			84		2						
F63105.00			8.9 83	F	8.2	252	--	--	3.4	--	0.0	136	--	0.5	0.3	--	0.0	--	--	121
07/10/68	5050	1.3	119 28	C	8.4				.15			2.23		.01						10
1545	5050								5			88								
F63105.00		1.48	9.3 84	F	8.5	273	--	--	5.0	--	3.0	144	--	1.9	0.1	--	0.0	--	--	134
08/07/68	5050	.1	125 28	C	8.4				.22		.10	2.36		.05						11
1500	5050								8		3	86		1						
F63105.00		1.52	9.0 77	F	8.5	289	33	15	5.2	1.3	3.0	143	22	2.1	0.4	--	0.0	--	173	144
09/11/68	5050	1.2	113 24	C	8.4		1.65	1.23	.23	.03	.10	2.35	.46	.06	.01				152	22
1540	5050						53	39	7	1	3	79	15	2						
F6312000							EEL RIVER, MIDDLE FORK, ABOVE BLACK BUTTE RIVER (5S)													
F63120.00			9.5 62	F	8.3	318	--	--	14	--	0.0	110	--	20	0.5	--	0.2	--	--	129
10/04/67	5050		102 16	C	8.4				.61			1.80		.56	.01					39
1240	5050								19			56		17						
F63120.00			10.3 61	F	8.3	363	--	--	16	--	0.0	119	--	25	0.7	--	0.3	--	--	137
11/08/67	5050		109 16	C	8.4				.70			1.95		.71	.01					40
1535	5050								19			53		19						
F63120.00			12.0 40.5F		7.9	155	--	--	4.3	--	0.0	67	--	3.6	0.6	--	0.2	--	--	67
12/06/67	5050		98 4.7C		7.1				.19			1.10		.10	.01					12
1520	5050								12			70		6						
F63120.00			12.1 43	F	8.1	106	--	--	2.2	--	0.0	56	--	2.0	0.3	--	0.0	--	--	49
02/07/68	5050	2320.0	102 6	C	7.6				.10			.92		.06						3
1510	5050								9			86		5						
F63120.00			11.6 45	F	8.0	105	--	--	2.1	--	0.0	52	--	0.0	0.1	--	0.0	--	--	48
03/06/68	5050	920.0	101 7	C	7.5				.09			.85								6
1310	5050								8			80								
F63120.00			11.6 46	F	8.0	103	--	--	2.1	--	0.0	54	--	1.5	0.0	--	0.1	--	--	46
04/04/68	5050	500.0	102 7	C	7.8				.09			.89		.04						2
0945	5050								8			86		3						
F63120.00			10.4 55	F	8.1	113	16	2.7	2.9	0.6	0.0	56	4.0	2.3	0.1	--	0.0	--	79	51
05/09/68	5050	290.0	103 12	C	7.8		.80	.22	.13	.02		.92	.08	.06					56	5
0950	5050						68	19	11	2		87	8	6						
F63120.00			9.9 58	F	8.2	154	--	--	4.2	--	0.0	71	--	4.0	0.0	--	0.1	--	--	66
06/06/68	5050	77.0	92 14	C	8.0				.18			1.16		.11						8
1000	5050								11			75		7						
F63120.00			8.3 80	F	8.2	279	--	--	7.8	--	0.0	109	--	15	0.0	--	0.2	--	--	116
07/10/68	5050	17.0	107 26	C	8.1				.34			1.79		.42						27
1525	5050								12			64		15						
F63120.00			9.0 81	F	8.4	362	--	--	14	--	2.0	114	--	26	0.0	--	0.2	--	--	139
08/07/68	5050	9.5	118 27	C	8.4				.61		.07	1.87		.73						42
1430	5050								16		1	51		20						
F63120.00			9.2 77	F	8.4	334	5.0	28	15	1.6	1.0	113	34	23	0.0	--	0.3	--	197	129
09/11/68	5050	9.0	116 24	C	8.4		.25	2.30	.65	.04	.03	1.85	.71	.65					163	35
1445	5050						8	71	20	1	1	57	22	20						
F6320000							BLACK BUTTE RIVER NEAR COVELO (5H)													
F63200.00		14.72	9.1 65	F	8.3	378	--	--	7.2	--	0.0	134	--	3.4	0.0	--	0.1	--	--	171
10/04/67	5050	37.0	101 18	C	8.4				.31			2.20		.10						61
1240	5050								8			58		2						
F63200.00		14.48	9.9 60.5F		8.0	382	--	--	6.9	--	0.0	133	--	4.0	0.0	--	0.0	--	--	171
11/08/67	5050	7.8	105 15.8C		8.4				.30			2.18		.11						62
1545	5050								7			57		2						
F63200.00		15.14	11.6 42	F	7.9	254	--	--	5.1	--	0.0	82	--	2.4	1.0	--	0.2	--	--	115
12/06/67	5050	90.0	97 5	C	7.6				.22			1.34		.07	.02					48
1515	5050								8			52		2						
F63200.00		16.34	11.8 44	F	8.2	144	--	--	2.6	--	0.0	69	--	0.3	0.5	--	0.1	--	--	65
02/07/68	5050	590.0	101 6	C	8.0				.11			1.13		.01	.01					9
1530	5050								7			78								
F63200.00		16.96	10.9 46	F	8.2	156	--	--	2.8	--	0.0	72	--	0.0	0.1	--	0.0	--	--	75
03/06/68	5050	1360.0	96 7	C	7.8				.12			1.18								16
1330	5050								7			75								
F63200.00		16.34	11.1 48	F	8.2	159	--	--	2.8	--	0.0	76	--	0.0	0.0	--	0.2	--	--	76
04/04/68	5050	590.0	101 8	C	8.2				.12			1.25								14
1000	5050								7			78								
F63200.00		15.26	9.7 59	F	8.4	208	32	3.6	4.4	0.7	2.0	91	21	2.6	0.0	--	0.0	--	120	95
05/09/68	5050	110.0	101 14	C	8.0		1.60	.30	.19	.02	.07	1.49	.44	.07					111	17
1010	5050						76	14	9	1	3	72	21	3						
F63200.00		14.86	9.5 60	F	8.4	252	--	--	4.8	--	2.0	110	--	1.8	0.0	--	0.0	--	--	117
06/06/68	5050	47.0	90 15	C	8.4				.21		.07	1.80		.05						24
1030	5050								8		2	71		1						
F63200.00		14.37	8.0 81	F	8.2	315	--	--	4.6	--	0.0	126	--	1.7	0.0	--	0.0	--	--	146
07/10/68	5050	8.0	105 27	C	8.3				.20			2.07		.05						43
1500	5050								6			65		1						

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
							MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE									MILLIGRAMS PER LITER				
				F6320000			BLACK BUTTE RIVER NEAR COVELO (5H)									CONTINUED				
F63200.00		14.20	8.6	81 F	8.5	364	--	--	7.3	--	3.0	123	--	2.8	0.1	--	0.1	--	--	154
08/07/68	5050	4.2	113	27 C	8.4				.32		.10	2.02		.08						48
1445	5050								8		2	55		2						
F63200.00		14.19	8.9	77 F	8.4	369	5.3	34	8.0	1.4	1.0	107	79	3.1	0.0	--	0.1	--	219	155
09/11/68	5050	4.1	112	24 C	8.4		.26	2.79	.35	.04	.03	1.75	1.64	.09					184	66
1510	5050						8	81	10	1	1	50	47	3						
				F6410000			EEL RIVER, SOUTH FORK, NEAR MIRANDA (7)													
F64100.00		4.17	8.8	61 F	8.3	268	--	--	11	--	0.0	127	--	7.2	2.4	--	0.1	--	--	111
10/04/67	5050	360.0	90	16 C	8.0				.48			2.08		.20	.04					7
0855	5050								17			77		7	1					
F64100.00		3.28	9.9	61 F	8.4	299	--	--	11	--	1.0	151	--	8.9	--	--	0.1	--	--	130
11/08/67	5050	83.0	101	16 C	8.3				.48		.03	2.48		.25						5
1120	5050								16		1	82		8						
F64100.00		7.53	11.5	46.5F	7.8	129	--	--	5.5	--	0.0	60	--	3.9	2.1	--	0.1	--	--	51
12/06/67	5050	3874.0	98	8.0C	7.3				.24			.98		.11	.03					2
1030	5050								18			75		8	2					
F64100.00		13.40	11.9	46 F	7.6	91	--	--	4.5	--	0.0	45	--	4.1	2.6	--	0.2	--	--	45
01/10/68	5050	16400.0	101	7 C	8.2				.20			.74		.12	.04					8
1040	5050								21			81		13	4					
F64100.00		7.29	11.7	49 F	8.0	126	--	--	4.4	--	0.0	62	--	2.9	1.0	--	0.0	--	--	50
02/07/68	5050	2690.0	103	9 C	7.5				.19			1.02		.08	.02					0
0900	5050								15			80		6	1					
F64100.00		5.77	10.2	51 F	8.1	150	--	--	5.0	--	0.0	73	--	2.2	0.1	--	0.0	--	--	61
03/06/68	5050	1010.0	92	10 C	7.6				.22			1.20		.06						1
0830	5050								14			80		4						
F64100.00		5.24	10.9	56 F	8.0	155	--	--	5.4	--	0.0	80	--	4.0	0.0	--	0.1	--	--	69
04/03/68	5050	1330.0	105	13 C	7.7				.23			1.31		.11						4
1130	5050								14			84		7						
F64100.00		4.34	10.2	64 F	8.5	202	25	6.2	7.9	1.1	3.0	96	9.2	4.9	0.0	--	0.1	--	116	88
05/08/68	5050	278.0	107	17 C	8.0		1.25	.51	.34	.03	.10	1.57	.19	.14					104	5
1115	5050						59	24	16	1	5	79	10	7						
F64100.00		4.18	8.8	66 F	8.1	219	--	--	8.0	--	0.0	111	--	4.7	0.0	--	0.1	--	--	93
06/05/68	5050	190.0	93	18 C	8.0				.35			1.82		.13						2
1100	5050								15			83		5						
F64100.00		3.77	9.5	75 F	8.3	259	--	--	7.5	--	0.0	135	--	5.4	0.1	--	0.1	--	--	113
07/10/68	5050	71.0	112	23 C	8.1				.33			2.21		.15						3
1110	5050								12			85		5						
F64100.00		3.56	10.5	71 F	8.3	264	--	--	10	--	0.0	126	--	6.6	0.1	--	0.1	--	--	106
08/07/68	5050	44.0	119	21 C	8.4				.44			2.07		.19						3
1110	5050								16			78		7						
F64100.00		3.69	10.8	69 F	8.2	278	18	18	10	1.5	0.0	142	13	7.4	0.0	--	0.2	--	143	120
09/11/68	5050	53.0	120	20 C	8.4		.90	1.48	.44	.04		2.33	.27	.21					138	4
1100	5050						31	52	15	1		83	10	7						
				F6530000			VAN DUZEN RIVER NEAR BRIDGEVILLE (5A)													
F65300.00		3.69	9.5	60 F	8.1	306	--	--	8.1	--	0.0	139	--	4.8	--	--	0.0	--	--	137
10/02/67	5050	27.0	96	15 C	8.2				.35			2.28		.14						23
1110	5050								11			74		4						
F65300.00		3.70	10.2	64 F	8.3	312	--	--	8.7	--	0.0	139	--	6.1	--	--	0.1	--	--	137
11/06/67	5050	25.0	107	17 C	8.2				.38			2.28		.17						23
1600	5050								12			73		5						
F65300.00		6.38	12.4	42 F	8.2	144	--	--	4.1	--	0.0	67	--	2.8	--	--	0.1	--	--	64
12/06/67	5050	1520.0	99	5 C	7.5				.18			1.10		.08						9
0820	5050								12			76		5						
F65300.00		10.24	13.2	41 F	8.0	91	--	--	2.6	--	0.0	50	--	2.3	--	--	0.2	--	--	45
01/10/68	5050	7600.0	104	4 C	8.3				.11			.82		.06						4
0835	5050								12			90		6						
F65300.00		6.68	12.2	46 F	8.1	115	--	--	2.6	--	0.0	62	--	1.2	--	--	0.1	--	--	52
02/06/68	5050	1520.0	103	7 C	7.5				.11			1.02		.03						1
1230	5050								9			88		2						
F65300.00		6.05	11.1	52 F	8.1	141	--	--	3.2	--	0.0	69	--	0.0	--	--	0.0	--	--	65
03/05/68	5050	695.0	101	11 C	7.7				.14			1.13								9
1415	5050								9			80								
F65300.00		6.01	10.6	53 F	8.1	137	--	--	3.0	--	0.0	69	--	2.0	--	--	0.1	--	--	68
04/01/68	5050	666.0	98	11 C	7.6				.13			1.13		.06						12
1540	5050								9			82		4						
F65300.00		5.05	10.2	57 F	8.5	202	28	5.6	5.1	1.0	3.0	95	13	3.0	0.1	--	0.0	--	186	93
05/08/68	5050	120.0	99	13 C	7.9		1.40	.46	.22	.03	.10	1.56	.27	.08					105	10
0830	5050						66	22	10	1	5	78	13	4						
F65300.00		4.93	9.7	60 F	8.4	226	--	--	5.2	--	1.0	111	--	2.4	--	--	0.1	--	--	102
06/05/68	5050	71.0	96	15 C	7.9				.23		.03	1.82		.07						10
0845	5050								10		1	80		3						
F65300.00		4.67	8.2	65 F	8.2	288	--	--	5.6	--	0.0	143	--	3.3	--	--	0.0	--	--	131
07/10/68	5050	16.0	87	18 C	7.8				.24			2.35		.09						14
0740	5050								8			81		3						

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER / DATE / TIME	LAB / SAMPLER	G.H. / Q	DO / SAT	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	TDS SUM	TH NCH
				F6530000			VAN DUZEN RIVER NEAR BRIDGEVILLE (5A)											CONTINUED		
F65300.00		4.62	9.1 64	F	8.3	308	--	--	9.0	--	0.0	152	--	4.0	--	--	0.0	--	--	147
08/07/68	5050	13.0	96 17	C	8.0				.39			2.49		.11						23
0840	5050								12			80		3						
F65300.00		4.64	8.6 64	F	8.4	315	40	9.7	8.8	1.6	5.0	135	--	4.8	0.0	--	0.0	--	--	140
09/11/68	5050	17.0	87 17	C	8.0		2.00	.80	.38	.04	.17	2.21		.14						21
0815	5050						63	25	12	1	5	70		4						
				F7110000			MATTOLE RIVER NEAR PETROLIA (7A)													
F71100.00		6.22	9.2 61	F	7.7	243	--	--	8.6	--	0.0	80	--	5.5	--	--	0.0	--	--	94
10/03/67	5050	492.0	93 16	C	7.8				.37			1.31		.16						29
1415	5050								15			53		6						
F71100.00		5.22	10.6 64	F	8.1	297	--	--	11	--	0.0	121	--	6.2	--	--	0.1	--	--	123
11/07/67	5050		111 17	C	8.1				.48			1.98		.17						24
1515	5050								16			66		5						
F71100.00		6.78	11.0 50	F	7.6	134	--	--	6.1	--	0.0	51	--	4.2	--	--	0.1	--	--	52
12/05/67	5050	3600.0	97 9	C	7.4				.27			.84		.12						10
1605	5050								20			62		8						
F71100.00		5.64	11.3 49	F	7.0	80	--	--	5.6	--	0.0	26	--	6.7	--	--	0.2	--	--	32
01/09/68	5050	2168.0	98 9	C	7.6				.24			.43		.19						11
1545	5050								30			53		23						
F71100.00		6.07	11.2 51	F	7.9	129	--	--	4.8	--	0.0	56	--	3.9	--	--	0.1	--	--	47
02/06/68	5050	2680.0	100 10	C	7.3				.21			.92		.11						1
1030	5050								16			71		8						
F71100.00		4.62	10.8 54	F	7.9	150	--	--	6.0	--	0.0	64	--	3.8	--	--	0.0	--	--	64
03/05/68	5050	1120.0	100 12	C	7.4				.26			1.05		.11						12
1145	5050								17			70		7						
F71100.00		4.14	11.1 54	F	8.0	151	--	--	5.8	--	0.0	69	--	4.3	--	--	0.1	--	--	63
04/02/68	5050	732.0	103 12	C	7.8				.25			1.13		.12						7
1515	5050								16			74		7						
F71100.00		3.05	10.2 64	F	8.4	194	26	3.6	7.5	1.0	2.0	84	16	3.8	0.0	--	0.0	--	118	80
05/07/68	5050	186.0	106 17	C	7.8		1.30	.30	.33	.03	.07	1.38	.33	.11					101	8
1245	5050						66	15	17	2	4	73	17	6						
F71100.00		2.91	9.9 70	F	8.2	210	--	--	7.7	--	0.0	94	--	3.7	--	--	0.1	--	--	86
06/04/68	5050	147.0	110 21	C	8.1				.33			1.54		.10						9
1200	5050								15			73		4						
F71100.00		2.56	9.1 78	F	8.2	250	--	--	6.7	--	0.0	111	--	3.9	--	--	0.1	--	--	105
07/09/68	5050	62.0	110 25	C	8.3				.29			1.82		.11						14
1610	5050								11			72		4						
F71100.00		2.38	10.3 77	F	8.3	255	--	--	10	--	0.0	116	--	4.7	--	--	0.1	--	--	110
08/06/68	5050	49.0	123 24	C	8.4				.44			1.90		.13						15
1450	5050								17			74		5						
F71100.00		2.45	10.5 65	F	7.9	290	38	7.3	9.8	1.6	0.0	127	32	4.8	0.0	--	0.1	--	157	125
09/10/68	5050	57.0	111 18	C	8.0		1.90	.60	.43	.04		2.08	.67	.14					156	21
0915	5050						64	20	14	1		72	23	5						
				F7510000			BEAR RIVER NEAR CAPETOWN (78)													
F75100.00			9.3 68.0	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/03/67		10.0	101 19.9	C	8.1	315														
1340	5050																			
F75100.00			11.5 63	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/07/67		7.0	119 17	C	8.4	340														
1430	5050																			
F75100.00			11.1 49	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/05/67		350.0	97 9	C	7.6	172														
1520	5050																			
F75100.00			11.1 48	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/09/68		600.0	96 8	C	8.0	216														
1510	5050																			
F75100.00			11.6 48	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/06/68		250.0	100 8	C	7.6	131														
0930	5050																			
F75100.00			10.9 53	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/05/68		100.0	100 11	C	7.7															
1100	5050																			
F75100.00			10.8 54	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04/02/68		60.0	100 12	C	7.8	185														
1435	5050																			
F75100.00			10.2 63	F	8.5	257	37	4.0	9.4	1.2	4.0	96	29	6.6	0.1	--	0.1	--	152	109
05/07/68	5050	30.0	105 17	C	7.9		1.85	.33	.41	.03	.13	1.57	.60	.19					138	24
1150	5050						71	13	16	1	5	63	24	8						
F75100.00			10.6 62	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/04/68		30.0	108 16	C	8.2	246														
1100	5050																			
F75100.00			8.8 80	F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/09/68		25.0	108 26	C	8.3	278														
1535	5050																			

TABLE D-2 (Continued)

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAB SAMPLER	G.M. Q	DO SAT	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH
				F7510000					BEAR RIVER NEAR CAPETOWN (78)									CONTINUED		
F75100.00			10.0	77 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/06/68		15.0	119	24 C	8.2	300														
1300	5050																			
F75100.00			10.6	61 F	7.9	386	54	6.2	13	1.9	0.0	151	49	8.3	0.0	--	0.2	--	168	160
09/10/68	5050	14.9	107	16 C	8.2		2.69	.51	.57	.05		2.48	1.02	.23					207	36
0830	5050						70	13	15	1		66	27	6						

TABLE D-3
TRACE ELEMENT ANALYSES OF SURFACE WATER
North Coastal Area

STATION	STATION NUMBER	DATE	CONSTITUENTS IN MICROGRAMS PER LITER															
			(Al)	(Be)	(Bi)	(Cd)	(Co)	(Cr)	(Cu)	(Fe)	(Go)	(Ge)	(Mn)	(Mo)	(Ni)	(Pb)	(Ti)	(V)
Eel River above Outlet Creek (5d)	F61329.50	5- 8-68	21	<0.6	<0.3	<1.4	<1.4	<1.4	3.1	27	<5.7	<0.3	2.4	<0.3	0.9	<1.4	<0.6	0.4
		9-12-68	19	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	8.6	<5.7	<0.3	< 1.4	1.2	1.7	2.3	<0.6	0.5
Eel River, Middle Fork at Dos Rios (5c)	F63010.00	5- 9-68	94	<0.6	<0.3	<1.4	<1.4	<1.4	3.1	3.1	<5.7	<0.3	7.4	<0.3	1.8	<1.4	<0.6	0.4
		9-12-68	4.0	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	1.7	<5.7	<0.3	< 1.4	2.1	0.9	<1.4	<0.6	0.6
Eel River at Scotia (6)	F61100.00	5- 8-68	149	<0.6	<0.3	<1.4	<1.4	<1.4	3.9	> 18	<5.7	<0.3	9.7	<0.3	1.7	<1.4	<0.6	0.4
		9-11-68	20	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	17	<5.7	<0.3	< 1.4	1.2	1.9	2.9	<0.6	0.4
Klamath River below Iron Gate Dam (1f)	F31600.00	5- 6-68	23	<0.6	<0.3	<1.4	<1.4	<1.4	3.4	> 16	<5.7	<0.3	17	<0.3	1.2	<1.4	<0.6	6.9
		9- 4-68	20	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	21	<5.7	<0.3	< 1.4	1.0	1.4	<1.4	<0.3	7.1
Klamath River near Klamath (3)	F31100.00	5- 7-68	274	<0.6	<0.3	<1.4	<1.4	<1.4	9.1	> 54	<5.7	<0.3	50	<0.3	8.3	<1.4	2.1	1.7
		9-10-68	6.3	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	9.4	<5.7	<0.3	< 1.4	1.1	2.9	<1.4	<0.6	2.1
Klamath River at Orleans (2c)	F31220.01	5- 6-68	126	<0.6	<0.3	<1.4	<1.4	<1.4	3.9	> 24	<5.7	<0.3	23	<0.3	5.6	<1.4	1.9	1.5
		9- 9-68	7.1	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	5.7	<5.7	<0.3	< 1.4	1.0	2.9	<1.4	<0.6	3.7
Klamath River near Seiad Valley (2b)	F31430.00	5- 6-68	63	<0.6	<0.3	<1.4	<1.4	<1.4	4.3	> 23	<5.7	<0.3	23	<0.3	4.9	<1.4	<0.6	3.4
		9- 4-68	11	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	7.1	<5.7	<0.3	< 1.4	0.9	1.9	<1.4	<0.6	5.1
Mad River near Arcata (6a)	F51100.00	5- 6-68	34	<0.6	<0.3	<1.4	<1.4	<1.4	2.1	54	<5.7	<0.3	83	<0.3	0.9	<1.4	<0.6	0.5
		9-10-68	14	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	9.7	<5.7	<0.3	< 1.4	0.9	1.8	<1.4	<0.6	0.4
Trinity River at Hoopa (4)	F41090.00	5- 6-68	246	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	>126	<5.7	<0.3	47	<0.3	3.7	<1.4	34	1.1
		9- 9-68	4.3	<0.6	<0.3	<1.4	<1.4	<1.4	<1.4	4.3	<5.7	<0.3	< 1.4	0.9	1.2	<1.4	<0.6	0.6

> Results are more than the amount indicated.

< Results are less than the amount indicated.

CONSTITUENTS

Al - Aluminum
Be - Beryllium
Bi - Bismuth
Cd - Cadmium
Co - Cobalt
Cr - Chromium
Cu - Copper
Fe - Iron
Ga - Gallium
Ge - Germanium
Mn - Manganese
Mo - Molybdenum
Ni - Nickel
Pb - Lead
Ti - Titanium
V - Vanadium
Zn - Zinc

TABLE D-4

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents * in mg/l
			Hellige	Hach	Jackson Candle		
r River at Capetown (7b)	F75100.00	10- 3-67		7			
		11- 7-67		0.5			
		12- 5-67			1060		
		1- 9-68			3600		
		2- 6-68		222			
		3- 5-68		240			
		4- 2-68		31			
		5- 7-68	1	2			
		6- 4-68		0.3			
		7- 9-68		1.2			
		8- 6-68		0.5			
		9-10-68	1	0.5			
ck Butte River near Covelo (5h)	F63200.00	10- 4-67	1	2		0.04	
		11- 8-67	0.8	0.1			
		12- 6-67	25	21		0.10	
		2- 7-68		165		0.55	
		3- 6-68		53		0.08	
		4- 4-68	20	11		0.04	
		5- 9-68	1	0.5		0.26	
		6- 6-68	0.2	1.5		0.02	
		7-10-68	1	0.5		0.00	
		8- 7-68	2			0.07	
		9-11-68	2	0.3		0.00	
k River above Outlet Creek (5d)	F61329.50	10- 4-67	3	6		0.01	
		11- 8-67	1	0			
		12- 5-67	70		68	0.27	
		1-10-68			840	0.44	
		2- 7-68		108		0.24	
		3- 6-68		40		0.03	
		4- 4-68	20	11		0.06	
		5- 8-68	0	1.0		0.20	
		6- 5-68	0.9	0.5		0.00	
		7-10-68	1			0.00	
		8- 7-68	1			0.08	
		9-12-68	1			0.07	
l River at Scotia (6)	F61100.00	10- 4-67	22*	8		0.18	Li 0.01; Sr 0.40
		11- 8-67	5*	0.4		0.15	Li 0.02; Sr 0.01
		12- 6-67	2800*		650	0.22	Li 0.01; Sr 0.20
		1-10-68			2150	0.09	Li 0.00; Sr 0.20
		2- 6-68		260		0.20	Li 0.00; Sr 0.19
		3- 5-68		68		0.15	Li 0.00; Sr 0.26
		4- 3-68	30*	32		0.12	Li 0.00; Sr 0.30
		5- 8-68	1*	2		0.08	Li 0.00; Sr 0.37
		6- 4-68	1*	0.5		0.03	Li 0.00; Sr 0.42
		7-10-68	1*			0.00	Li 0.00; Sr 0.23
		8- 7-68	10*	0.3		0.06	Li 0.00; Sr 0.45
		9-11-68		1.3			Li 0.01; Sr 0.48
l River at South Fork (5)	F61154.50	10- 4-67	4	5			
		11- 8-67	0.5	0.5			
		12- 6-67	520		500		
		1-10-68			3150		
		2- 7-68		225			
		3- 6-68		70			
		4- 3-68	70	38			
		5- 8-68	3	3			
		6- 5-68	0.9	1			
		7-10-68	1				
		8- 7-68	4				
		9-11-68	1				
l River, Middle Fork above Black Butte River (5g)	F63120.00	10- 4-67	2	1		0.04	
		11- 8-67	0.5	0.2			
		12- 6-67	25		15	0.08	
		2- 7-68		85		0.29	
		3- 6-68		15		0.04	
		4- 4-68	35	13		0.03	
		5- 9-68	3	2			
		6- 6-68	0.9	0.5		0.01	
		7-10-68	1	0.2		0.00	
		8- 7-68	3			0.01	
		9-11-68	2	0.3		0.02	

These values reported in ppm of Silica by the U.S. Geological Survey
Li - Lithium, Sr - Strontium

TABLE D-4 (Continued)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents in mg/l
			Hellige	Hach	Jackson Candle		
Eel River, Middle Fork at Dos Rios (5c)	F63010.00	10- 4-67	2	4		0.02	
		11- 8-67	0.5	0.5			
		12- 6-67	105		98	0.09	
		1-10-68			1050	0.48	
		2- 7-68		225		0.48	
		3- 6-68		72		0.04	
		4- 4-68	70	40		0.06	
		5- 9-68	7	3			
		6- 5-68	0.9			0.02	
		7-10-68	0.8	0.2		0.00	
		8- 7-68	3			0.00	
		9-12-68	1	0.3		0.08	
Eel River, South Fork near Miranda (7)	F64100.00	10- 4-67	130	175		0.08	
		11- 8-67	1	1.4			
		12- 6-67	450		400	0.79	
		1-10-68			1850	0.83	
		2- 7-68		165		0.40	
		3- 6-68		33		0.07	
		4- 3-68	12	8.7		0.10	
		5- 8-68	1	0.5		0.24	
		6- 5-68	0.9	1.5		0.04	
		7-10-68	1			0.01	
		8- 7-68	3			0.00	
		9-11-68	2	0.3		0.02	
Klamath River above Hamburg Reservoir Site (1c)	F31470.00	11- 9-67	12	32		0.57	
		1- 3-68				0.46	
		3- 6-68		11		0.40	
		5- 6-68	1	2		0.38	
		7- 3-68	14	1.5		0.39	
		9- 4-68	3	2.3		0.61	
Klamath River at Orleans (2c)	F31220.01	10- 2-67	3	4			
		11- 6-67	2				
		12- 4-67	35	34			
		1- 8-68		11			
		2- 5-68		42			
		3- 4-68		60			
		4- 1-68	25	14			
		5- 6-68	1	3			
		6- 3-68	3	1			
		7- 8-68	0.8	0.3			
		8- 5-68	4	1.4			
		9- 9-68	2	0.8			
Klamath River below Iron Gate Dam (1f)	F31600.00	10- 9-67	2			0.63	
		11- 8-67	2	2.3		0.60	
		12-12-67	4			0.26	
		1- 3-68				0.39	
		2-13-68		11		0.36	
		3- 6-68		11		0.42	
		4- 1-68	4	2.0		0.22	
		5- 6-68	2	1.5		0.34	
		6-11-68	2	2.5		0.28	
		7- 3-68	22	1.0		0.44	
		8- 6-68	5			0.58	
		9- 4-68	3			0.66	
Klamath River near Klamath (3)	F31100.00	10- 3-67	41*	28		0.50	Li 0.01; Sr 0.1
		11- 7-67	5*			0.39	Li 0.02; Sr 0.01
		12- 5-67	1650*		380	0.23	Li 0.01; Sr 0.10
		1- 9-68		18		0.03	Li 0.00; Sr 0.1
		2- 5-68		105		0.18	Li 0.00; Sr 0.10
		3- 4-68		102		0.20	Li 0.00; Sr 0.09
		4- 2-68	30*	31		0.07	Li 0.00; Sr 0.1
		5- 7-68	5*	7		0.08	Li 0.00; Sr 0.09
		6- 4-68	3*	11		0.10	Li 0.00; Sr 0.10
		7- 9-68	2*	0.5		0.27	Li 0.00; Sr 0.14
		8- 6-68	15*	1.7		0.24	Li 0.00; Sr 0.14
		9-10-68		1.0			Li 0.01; Sr 0.14
Klamath River near Seiad Valley (2b)	F31430.00	11- 9-67	2	1.3		0.47	
		1- 3-68				0.37	
		3- 6-68		18		0.25	
		5- 6-68	2			0.36	
		7- 3-68	5	0.5		0.28	
		9- 4-68	3	1.6		0.53	

* These values reported in ppm of Silica by the U.S. Geological Surveys.

TABLE D-4 (Continued)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents in mg/l
			Hellige	Hach	Jackson Candle		
asta River near Yreka (1a)	F21050.00	10- 9-67	2				
		11- 8-67	3				
		12-12-67	5				
		1- 3-68	-				
		2-13-68	-	10			
		3- 6-68	-	10			
		4- 1-68	2				
		5- 6-68	1				
		6-11-68	3				
		7- 3-68	5				
		8- 6-68	4				
		9- 4-68	2	0.6		0.63	
ith River near Creacent City (3a)	F01300.00	10- 3-67	20	24			
		11- 7-67	1	0.5			
		12- 5-67	100	79			
		1- 9-68	-	11			
		2- 5-68	-	60			
		3- 5-68	-	16			
		4- 2-68	15	6.8			
		5- 7-68	0				
		6- 3-68	0.5	0.5			
		7- 9-68	0.8	0.5			
		8- 6-68	3				
		9-10-68	1	0.3			
inity River at Hoopa (4)	F41090.00	10- 2-67	40			0.14	
		11- 6-67	1			-	
		12- 4-67	105		250	0.95	
		1- 8-68	-	5		0.03	
		2- 5-68	-	145		0.53	
		3- 4-68	-	91		0.35	
		4- 1-68	60	34		0.09	
		5- 6-68	11	6		-	
		6- 3-68	2	12.5		0.05	
		7- 8-68	3	3.7		0.00	
		8- 5-68	2			0.08	
		9- 9-68	2.	0.4		0.04	
rinity River at Lewiston (4a)	F41640.00	10- 2-67	1			0.13	
		11- 6-67	1			-	
		12- 4-67	5			0.04	
		1- 8-68	-	1		0.09	
		2- 5-68	-			0.06	
		3- 4-68	-	4		0.01	
		4- 1-68	2	1.5		0.02	
		5- 6-68	2			-	
		6- 3-68	2			0.01	
		7- 8-68	0.8			0.00	
		8- 5-68	8			0.08	
		9- 9-68	2			0.02	
rinity River near Burnt Ranch (4b)	F41376.00	11- 6-67	0.6			-	
		1- 8-68	-			0.04	
		3- 4-68	-	5		0.04	
		5- 6-68	1			0.20	
		7- 8-68	1	1.2		0.00	
		9- 9-68	2	0.4		0.00	
an Duzen River near Bridgeville (5a)	F65300.00	10- 2-67	10	13			
		11- 6-67	1	0.5			
		12- 6-67	450		310		
		1-10-68	-		1400		
		2- 6-68	-	239			
		3- 5-68	-	76			
		4- 1-68	40	19			
		5- 8-68	1				
		6- 5-68	0.9	0.5			
		7-10-68	0.8	0.2			
		8- 7-68	3				
		9-11-68	-				
illiams Creek near Covelo (5f)	F63105.00	10- 4-67	2	2		0.04	
		11- 8-67	0.5	0.2			
		12- 6-67	25	20		0.10	
		1-10-68	-	-	158	0.18	
		2- 7-68	-	16		0.07	
		3- 6-68	-	1		0.00	
		4- 4-68	4	1.5		0.04	
		5- 9-68	2	1.5		0.18	
		6- 6-68	0.5	1.5		0.02	
		7-10-68	2			0.00	
		8- 7-68	2			0.11	
		9-11-68	1			0.07	

TABLE D-4 (Continued)

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

NORTH COASTAL AREA

Station	Station Number	Date	Turbidity in Jackson Candle Units			PO_4 in mg/l	Other Constituents in mg/l
			Hellige	Hach	Jackson Candle		
Mad River near Arcata (6a)	F51100.00	10- 2-67	6	8			
		11- 6-67	2	0.8			
		12- 4-67	140	162			
		1- 8-68		20			
		2- 5-68		335			
		3- 4-68		81			
		4- 1-68	70	54			
		5- 6-68	1	0.5			
		6- 3-68	2	3			
		7- 8-68	6	6			
		8- 5-68	3	0.5			
		9-10-68	6	6.4			
Mattole River at Petrolia (7a)	F71100.00	10- 3-67	390	250			
		11- 7-67	0.9				
		12- 5-67	800		600		
		1- 9-68			1650		
		2- 6-68		137			
		3- 5-68		40			
		4- 2-68	35	14			
		5- 7-68	0	1			
		6- 4-68	0.7	0.5			
		7- 9-68	1	7.0			
		8- 6-68	3				
		9-10-68	2	0.6			
Mill Creek near Covelo (5e)	F63050.00	12- 6-67	60	49		0.23	
		1-10-68			310	0.27	
		2- 7-68		35		0.11	
		3- 6-68		6		0.08	
		4- 4-68	3	1.4		0.10	
		5- 9-68	1	2		0.41	
		6- 6-68	0.5	0.1		0.06	
Outlet Creek near Longvale (5b)	F61350.00	10- 4-67	6	10			
		11- 8-67	1	0.5			
		12- 6-67	60	60			
		1-10-68			450		
		2- 7-68		15			
		3- 6-68		6			
		4- 4-68	4	1.8			
		5- 8-68	0	0.5			
		6- 5-68	1	1.5			
		7-10-68	0.8				
		8- 7-68	3				
		9-12-68	2	0.5			
Redwood Creek at Orick (3b)	F55100.00	10- 3-67	400				
		11- 7-67	2				
		12- 5-67	1400		1350		
		1- 9-68		68			
		2- 5-68		190			
		3- 4-68		65			
		4- 2-68	80	42			
		5- 6-68	2	3.5			
		6- 4-68	2	1			
		7- 9-68	0.8	1.5			
		8- 5-68	1	0.4			
		9- 9-68	2	0.8			
Salmon River at Somesbar (2a)	F34100.00	5- 6-68	1				
		9- 9-68	2				
Scott River near Fort Jones (1b)	F25250.00	10- 9-67	1				
		11- 9-67	1				
		12-12-67	2				
		1- 4-68	-				
		2-13-68	-	5			
		3- 6-68	-				
		4- 2-68	5	6.5			
		5- 6-68	1				
		6-11-68	2				
		7- 3-68	8				
		8- 6-68	3				
		9- 5-68	1			0.02	

APPENDIX E

GROUND WATER QUALITY

INTRODUCTION

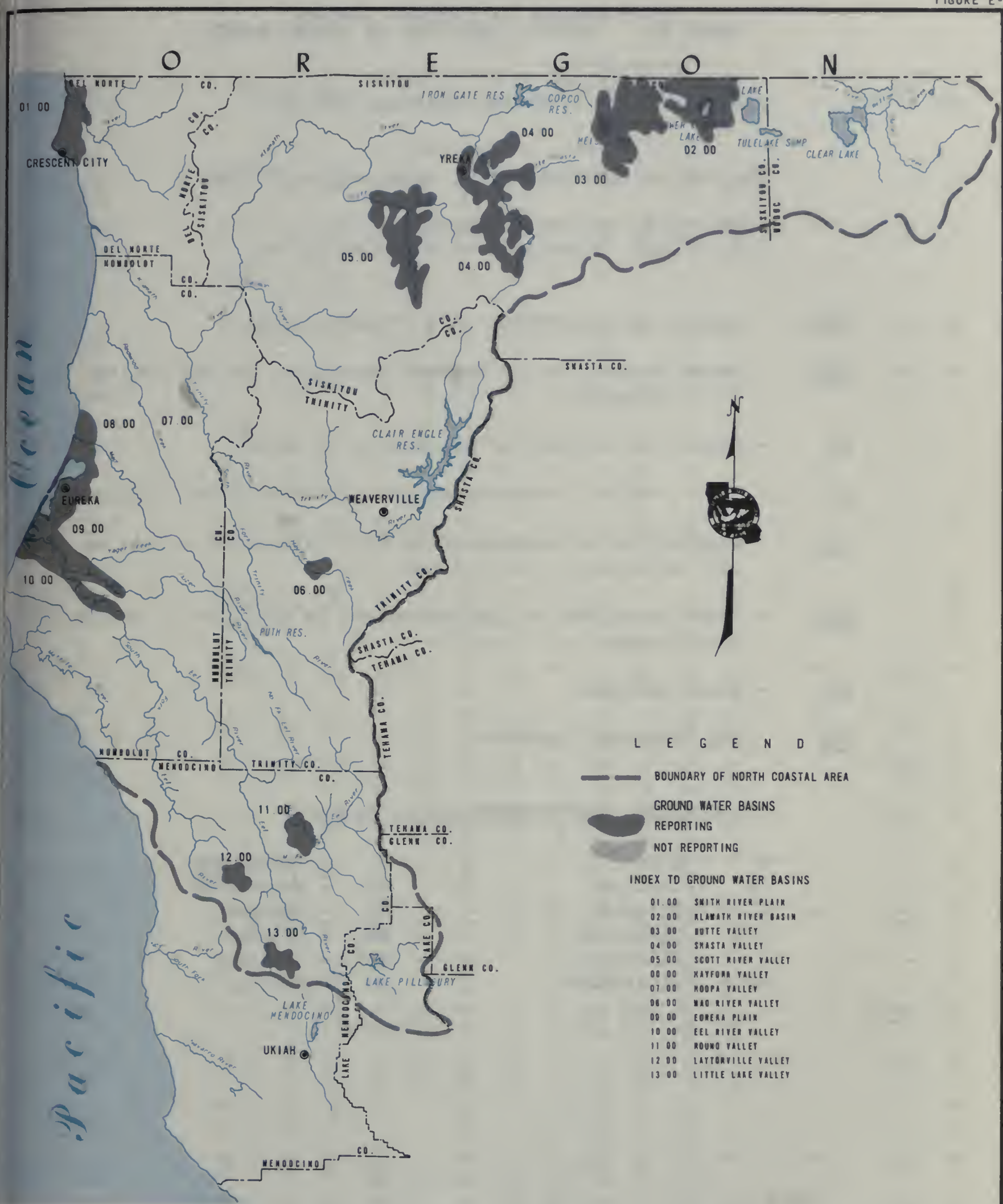
This appendix presents ground water quality data collected during the period from October 1, 1967, through September 30, 1968. The data were collected from a number of major ground water sources in the North Coastal area in cooperation with local agencies. During the 1968 water year, 94 wells were sampled in 12 ground water basins.

At the time of field sampling, pH, specific conductance, and temperature measurements are normally made. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources.

Laboratory analyses of ground waters were performed in accordance with "Standard Methods for the Examination of Water and Waste Water", 12th Edition.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements".

FIGURE E-1



GROUND WATER BASINS, WATER QUALITY SAMPLES

TABLE E-1 MINERAL ANALYSES OF GROUND WATER

An explanation of column headings follows:

The LAB and SAMPLER agency codes are as follows:

5000 - U.S. Geological Survey
5050 - State Department of Water Resources

TIME - Pacific Standard Time on a 24-hour clock.

TEMP - Water temperature in degrees Fahrenheit at the time of field sampling.

PH - Measure of acidity or alkalinity of water.

EC - The electrical conductance in micromhos at 25° Celsius.

TDS - Gravimetric determination of total dissolved solids at 180° Celsius.

SUM - Total dissolved solids determined by addition of analyzed constituents.

TH - Total hardness.

NCH - Non-carbonate hardness.

The MINERAL CONSTITUENTS are as follows:

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO_3	- Carbonate	NO_3	- Nitrate
F	- Fluoride	SIO_2	- Silica
HCO_3	- Bicarbonate	SO	- Sulfate

TABLE E-1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER / DATE / TIME	LAB / SAMPLER	TEMP	PH LAB / PH FLD	EC LAB / EC FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER: F	B	SIO2	TDS SUM	TH NCH
							SMITH RIVER PLAIN 1-1.00											
16N/01W-17K02 M		60 F	7.9	279	6.4	12	26	--	0.0	46	--	29	50	--	--	--	--	66
07/10/68	5050	15 C	6.2	285	.32	1.00	1.13			.75		.82	.81					29
1430	5050				11	35	40			26		29	29					
16N/02W-13E01 M		60 F	7.7	320	12	9.7	34	1.9	0.0	63	12	56	0.0	--	0.0	--	149	70
07/10/68	5050	15 C	6.3	330	.60	.80	1.48	.05		1.03	.25	1.58					156	19
1315	5050				20	27	51	2		36	9	55						
17N/01W-02G01 M		55.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/11/68		12.7C	6.5	115														
0930	5050																	
17N/01W-04J01 M		55 F	8.1	281	4.8	30	3.8	1.1	0.0	160	4.3	8.0	3.2	--	0.0	--	136	-134
07/11/68	5050	12 C	7.3	280	.24	2.47	.17	.03		2.62	.09	.23	.05				134	3
1230	5050				8	85	6	1		88	3	8	2					
17N/01W-14C02 M		64 F	8.1	206	2.9	20	4.2	1.4	0.0	102	2.0	9.0	6.6	--	0.0	--	100	89
07/11/68	5050	17 C	6.6	205	.14	1.64	.18	.04		1.67	.04	.25	.11				96	6
0745	5050				7	82	9	2		81	2	12	5					
18N/01W-05K01 M		56.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/11/68		13.3C	6.2	175														
1130	5050																	
18N/01W-26H01 M		60 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/11/68		15 C	6.6	95														
1030	5050																	
18N/01W-34M02 M		56 F	8.6	394	13	40	4.0	--	--	--	--	5.2	--	--	--	--	--	200
07/11/68	5050	13 C	7.0	380	.65	3.35	.17					.15						200
0810	5050				16	85	4					3						
							KLAMATH RIVER VALLEY 1-2.00											
47N/02E-20C01 M		62.0F	7.0	429	--	--	25	--	0.0	124	--	21	8.5	0.1	--	--	--	144
08/22/68	5050	16.6C	6.9	475			1.09			2.03		.59	.14					43
1100	5050						25			47		13	3					
							BUTTE VALLEY 1-3.00											
45N/01E-09C02 M		57.0F	8.3	182	10	8.5	15	2.2	0.0	100	2.6	2.6	2.0	--	0.0	--	122	60
08/21/68	5050	13.8C	7.7	175	.50	.70	.65	.06		1.64	.05	.07	.03				92	0
0930	5050				26	37	34	3		92	3	4	2					
45N/02W-01P01 M		52 F	8.3	254	22	13	10	2.7	0.0	129	18	1.8	6.0	--	0.0	--	187	108
08/21/68	5050	11 C	6.5	250	1.10	1.07	.44	.07		2.12	.37	.05	.10				137	2
1100	5050				41	40	16	3		80	14	2	4					
46N/01W-02F01 M		53 F	8.5	432	24	18	39	6.4	1.0	237	10	4.9	8.2	--	0.0	--	223	134
08/22/68	5050	11 C	8.1	430	1.20	1.48	1.70	.16	.03	3.89	.21	.14	.13				228	0
1500	5050				26	33	37	4	1	88	5	3	3					
46N/01W-06P01 M		51 F	8.4	602	37	36	43	7.6	6.0	328	38	8.9	3.8	--	0.0	--	328	239
08/21/68	5050	10 C	7.2	625	1.85	2.96	1.87	.19	.20	5.38	.79	.25	.06				341	0
1615	5050				27	43	27	3	3	81	12	4	1					
46N/01W-17B01 M		53 F	7.7	378	--	--	34	--	0.0	226	--	3.4	--	--	--	--	--	124
08/21/68	5050	11 C	8.2	355			1.48			3.71		.10						0
1340	5050						39			98		2						
46N/01W-17L01 M		53 F	8.5	496	35	30	24	4.7	3.0	278	15	4.5	9.6	--	0.0	--	203	210
08/21/68	5050	11 C	7.5	490	1.75	2.47	1.04	.12	.10	4.56	.31	.13	.15				262	0
1315	5050				33	46	19	2	2	87	6	2	3					
46N/02W-25R02 M		52 F	7.3	339	--	--	13	--	0.0	134	--	2.1	--	--	--	--	--	135
08/21/68	5050	11 C	7.1	320			.57			2.20		.06						25
1250	5050						16			64		1						
47N/01W-23H01 M		52 F	8.5	4800	67	179	825	75	24	822	1390	437	20	--	1.1	--	3530	905
08/22/68	5050	11 C	7.7	5000	3.34	14.71	35.89	1.92	.80	13.48	28.91	12.32	.32				3421	191
1410	5050				6	26	64	3	1	24	52	22	1					
47N/01W-23H02 M		66 F	7.8	200	5.5	5.0	29	6.6	0.0	104	0.6	5.4	6.7	--	0.1	--	142	34
08/22/68	5050	18 C	8.0	205	.27	.41	1.26	.17		1.71	.01	.15	.11				110	0
1350	5050				13	19	60	8		86	1	8	6					
47N/02W-21H02 M		52 F	7.4	129	--	--	6.1	--	0.0	70	--	2.0	--	--	--	--	--	58
08/22/68	5050	11 C	7.1	128			.27			1.15		.06						1
1245	5050						20			89		4						
48N/01E-30F01 M		55 F	8.5	363	25	16	24	7.1	5.0	198	12	4.5	0.1	--	0.0	--	197	129
08/22/68	5050	12 C	7.8	365	1.25	1.32	1.04	.18	.17	3.25	.25	.13					191	0
0915	5050				33	35	27	5	4	86	7	3						
48N/01E-31D03 M		71.0F	8.6	483	3.5	1.8	106	9.2	6.0	269	0.0	8.8	8.3	--	0.5	--	312	16
08/22/68	5050	21.6C	8.4	495	.17	.15	4.61	.24	.20	4.41		.25	.13				276	0
0930	5050				3	3	89	5	4	88		5	3					
48N/01W-28F01 M		83 F	8.2	196	3.3	0.2	46	1.2	0.0	111	0.6	16	1.5	--	0.0	--	135	9
08/22/68	5050	28 C	8.4	200	.16	.02	2.00	.03		1.82	.01	.45	.02				123	0
0810	5050				7	1	90	1		79		20	1					
48N/01W-28J01 M		60 F	8.4	413	35	17	24	6.3	5.0	231	12	4.9	3.5	--	0.0	--	269	158
08/22/68	5050	15 C	7.5	415	1.75	1.40	1.04	.16	.17	3.79	.25	.14	.06				221	0
0830	5050				40	32	24	4	4	86	6	3	1					
48N/01W-36J01 M		54 F	8.6	1280	34	66	180	26	33	716	66	28	7.7	--	0.0	--	770	357
08/22/68	5050	12 C	7.4	1380	1.70	5.43	7.83	.67	1.10	11.74	1.37	.79	.12				792	0
1000	5050				11	35	50	4	7	78	9	5	1					

TABLE E-I (Continued)

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER F	B	SIO2	TDS SUM	TH NCH
							SHASTA VALLEY 1-4.00										
42N/05W-20J01 M	63 F	7.7	394	18	25	24	--	0.0	223	--	6.9	--	--	--	--	--	151
08/15/68 5050	17 C	6.9	375	.90	2.12	1.04			3.66		.19						0
0820 5050				22	53	26			92		4						
42N/06W-10J01 M	60 F	8.3	567	19	64	4.0	--	0.0	381	--	3.7	--	--	--	--	--	313
08/15/68 5050	15 C	7.3	565	.95	5.31	.17			6.25		.10						1
0915 5050				16	93	2			110		1						
43N/05W-02C01 M	52 F	8.3	262	16	12	19	2.0	0.0	138	2.6	10	1.0	--	0.1	--	177	91
08/15/68 5050	11 C	6.6	270	.80	.99	.83	.05		2.26	.05	.28	.02				130	0
1230 5050				30	37	31	2		87	2	11	1					
43N/06W-21R01 M	58 F	8.2	480	52	14	8.7	1.0	0.0	224	5.8	3.6	5.6	--	0.0	--	221	189
08/15/68 5050	14 C	7.3	495	2.59	1.15	.38	.03		3.67	.12	.10	.09				200	6
1000 5050				62	28	9	1		92	3	3	2					
44N/05W-32C03 M	60 F	8.2	1320	--	--	113	--	0.0	557	--	157	--	--	0.0	--	--	420
08/15/68 5050	15 C	7.3	1310			4.92			9.13		4.43						0
1120 5050						37			69		33						
44N/05W-34H01 M	56 F	8.6	665	43	31	51	6.6	6.0	340	8.6	24	12	--	0.5	--	348	233
08/15/68 5050	13 C	7.0	655	2.15	2.55	2.22	.17	.20	5.58	.18	.68	.19				349	0
1145 5050				30	36	31	2	3	82	3	10	3					
44N/06W-22K01 M	63 F	7.6	468	--	--	19	--	0.0	225	--	11	--	--	--	--	--	187
08/15/68 5050	17 C	7.0	465			.83			3.69		.31						3
1045 5050						17			78		6						
45N/05W-06E01 M	72.0F	8.2	881	12	8.0	185	1.8	0.0	526	0.5	26	0.4	1.9	5.4	--	531	63
08/23/68 5050	22.2C	8.1	840	.60	.66	8.05	.05		8.63	.01	.73	.01				499	0
0800 5050				6	7	86	1		92		8						
45N/05W-06Q01 M	57 F	7.8	430	39	18	25	0.6	0.0	206	18	15	22	0.3	.01	37	260	172
05/25/68 5000	13 C			1.95	1.48	1.09	.02		3.38	.37	.42	.35				276	3
5000				43	33	24			75	8	9	8					
45N/06W-12G01 M	57 F	7.7	431	39	18	25	0.5	0.0	206	18	15	22	0.3	.02	37	270	172
05/25/68 5000	13 C			1.95	1.48	1.09	.01		3.38	.37	.42	.35				276	3
5000				43	33	24			75	8	9	8					
45N/06W-19E01 M	63 F	7.8	388	--	--	37	--	0.0	181	--	2.3	--	--	--	--	--	112
08/15/68 5050	17 C	7.5	375			1.61			2.97		.06						0
1330 5050						41			76		1						
							SCOTT RIVER VALLEY 1-5.00										
42N/09W-02G01 M	54 F	8.3	534	56	31	7.0	0.6	0.0	308	7.2	4.3	16	--	0.0	--	271	268
08/16/68 5050	12 C	7.1	525	2.79	2.55	.30	.02		5.05	.15	.12	.26				273	16
0820 5050				49	45	5			91	3	2	5					
42N/09W-27K01 M	56.0F	6.7	57	7.1	2.0	2.3	--	0.0	30	--	0.8	--	--	--	--	--	26
08/15/68 5050	13.3C	6.1	58	.35	.17	.10			.49		.02						2
0910 5050				61	29	17			85		3						
43N/09W-02G01 M	59 F	8.3	547	56	34	5.5	0.9	0.0	325	12	3.6	9.2	--	0.0	--	260	281
08/15/68 5050	14 C	7.1	550	2.79	2.79	.24	.02		5.33	.25	.10	.15				280	15
1510 5050				48	48	4			91	4	2	3					
43N/09W-08F01 M	63 F	7.2	111	15	3.7	2.8	--	0.0	66	--	1.0	--	--	--	--	--	53
08/16/68 5050	17 C	6.7	110	.75	.31	.12			1.08		.03						0
1110 5050				67	27	10			97		2						
43N/09W-24F01 M	55 F	8.2	489	55	30	5.5	--	0.0	312	--	2.3	--	--	1.6	--	--	261
08/15/68 5050	12 C	7.1	500	2.74	2.47	.24			5.12		.06						5
1630 5050				56	50	4			104		1						
43N/09W-24F02 M	56 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/15/68	13 C	7.1	430														
1640 5050																	
43N/09W-29G02 M	61 F	7.1	57	--	--	2.4	--	0.0	27	--	0.8	--	--	--	--	--	23
08/16/68 5050	16 C	6.1	58			.10			.44		.02						1
1230 5050						17			77		3						
43N/10W-14B01 M	58.0F	7.9	79	8.0	3.4	1.8	0.5	0.0	38	3.3	0.9	0.0	--	0.0	--	63	34
08/23/68 5050	14.4C	6.5	80	.40	.28	.08	.01		.62	.07	.03					37	3
1100 5050				52	36	10	1		86	10	4						
44N/09W-34R01 M	62 F	7.2	322	40	13	5.8	--	0.0	175	--	2.7	--	--	--	--	--	156
08/15/68 5050	16 C	6.8	320	2.00	1.12	.25			2.87		.08						13
1540 5050				62	34	7			89		2						
							HAYFORK VALLEY 1-6.00										
31N/12W-12L01 M	63 F	8.3	168	16	8.0	6.0	--	0.0	94	--	2.5	--	--	--	--	--	73
07/01/68 5050	17 C	6.2	165	.80	.66	.26			1.54		.07						0
1100 5050				47	39	15			91		4						
31N/12W-15D01 M	60 F	8.6	928	11	12	192	3.0	14	520	0.0	22	20	--	0.0	--	586	76
07/01/68 5050	15 C	7.6	950	.55	.99	8.35	.08	.47	8.53		.62	.32				529	0
1040 5050				6	10	84	1	5	86		6	3					
31N/12W-15K01 M	61 F	8.1	277	25	14	11	0.5	0.0	142	3.3	10	10	--	0.0	--	164	120
07/01/68 5050	16 C	6.8	275	1.25	1.15	.48	.01		2.33	.07	.28	.16				143	4
1040 5050				43	40	17			82	2	10	6					
							MAD RIVER VALLEY 1-8.00										
05N/01E-04H04 M	58.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68	14.4C	7.8	420														
0745 5050																	

TABLE E-1 (Continued)

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER / DATE / TIME	LAB / SAMPLER	TEMP	PH LAB / FLD	EC LAB / FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCM
							MAD RIVER VALLEY 1-8.00									CONTINUED		
06N/01E-07M01 H		64 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/24/68		17 C	6.8	575														
1315	5050																	
06N/01E-17D01 H		56 F	8.2	448	41	26	7.8	2.3	0.0	227	18	16	0.1	--	0.1	--	226	207
06/25/68	5050	13 C	6.9	430	2.05	2.14	.34	.06		3.72	.37	.45					223	21
1120	5050				45	47	7	1		82	8	10						
06N/01E-32F01 H		82 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/24/68		27 C	7.9	730														
1540	5050																	
06N/01W-01H01 H		57 F	7.5	184	4.8	7.5	18	--	0.0	27	--	22	--	--	--	--	--	43
06/24/68	5050	13 C	6.8	185	.24	.62	.78			.44		.62						21
1240	5050				13	33	42			23		33						
							EUREKA PLAIN 1-9.00											
02N/01W-12D04 H		61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/27/68		16 C	7.7	160														
1400	5050																	
03N/01W-05K01 H		61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68		16 C	6.9	150														
1115	5050																	
03N/02W-35M01 H		55 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/27/68		12 C	7.1	915														
0945	5050																	
04N/01W-08P01 H		61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68		16 C	7.7	160														
1110	5050																	
04N/01W-16H01 H		58 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68		14 C	7.6	515														
0910	5050																	
04N/01W-17B01 H		61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68		16 C	7.1	170														
1030	5050																	
05N/01E-18Q01 H		62 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/26/68		16 C	7.3	840														
0830	5050																	
05N/01W-29Q01 H		59 F	7.9	290	7.3	16	20	2.4	0.0	65	16	26	38	--	0.1	--	153	84
06/24/68	5050	14 C	7.0	295	.36	1.32	.87	.06		1.07	.33	.73	.61				158	31
1500	5050				14	51	33	2		39	12	27	22					
							EEL RIVER VALLEY 1-10.00											
02N/01W-04D01 H		59 F	8.5	592	78	23	8.9	3.1	5.0	294	35	8.6	18	--	0.1	--	302	288
06/27/68	5050	14 C	7.0	575	3.89	1.89	.39	.08	.17	4.82	.73	.24	.29				324	39
1300	5050				62	30	6	1	3	77	12	4	5					
02N/01W-07F01 H		55 F	8.4	484	33	30	15	2.3	2.0	186	53	23	0.1	--	0.0	--	248	206
06/27/68	5050	12 C	7.1	465	1.65	2.47	.65	.06	.07	3.05	1.10	.65					250	50
1205	5050				34	51	13	1	1	63	23	13						
03N/01W-18A01 H		60 F	8.3	450	26	29	19	2.5	0.0	225	20	14	5.7	--	0.1	--	212	196
06/26/68	5050	15 C	7.0	425	1.30	2.39	.83	.06		3.69	.42	.39	.09				227	2
1140	5050				28	52	18	1		80	9	8	2					
03N/01W-30N01 H		56 F	8.4	584	33	50	8.6	--	6.0	290	--	13	--	--	--	--	--	289
06/27/68	5050	13 C	6.9	475	1.65	4.13	.37		.20	4.76		.37						41
1015	5050				28	70	6		3	81		6						
03N/02W-13J01 H		56 F	8.3	2460	103	151	120	--	0.0	239	--	632	--	--	--	--	--	880
06/26/68	5050	13 C	6.8	2450	5.14	12.45	5.22			3.92		17.82						685
1300	5050				20	50	21			15		72						
03N/02W-32Q01 H		55.0F	4.9	1050	29	32	100	4.0	0.0	0.0	1.0	310	0.1	--	0.1	--	529	204
06/27/68	5050	12.7C	7.1	1050	1.45	2.63	4.35	.10			.02	8.74					476	204
0830	5050				17	31	51	1				100						
							ROUND VALLEY 1-11.00											
22N/12W-06L02 H		60.0F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/17/68		15.5C	7.3	465														
0700	5050																	
22N/13W-01J03 H		62 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/17/68		16 C	7.6	235														
0745	5050																	
22N/13W-12K01 H		60 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/17/68		15 C	7.1	380														
0830	5050																	
22N/13W-13A01 H		66 F	8.4	253	20	11	14	--	2.0	116	--	8.9	--	--	--	--	--	98
07/17/68	5050	18 C	7.1	250	1.00	.96	.61		.07	1.90		.25						0
0910	5050				39	37	24		2	75		9						
23N/12W-31N01 H		60 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/17/68		15 C	7.4	265														
0945	5050																	

TABLE E-1 (Continued)

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	MILLIGRAMS PER LITER F	B	SIO2	TDS SUM	TH NC
							ROUND VALLEY 1-11.00								CONTINUED		
23N/12W-33L03 M	73 F	8.4	627	58	32	29	1.3	2.0	404	0.0	3.8	3.9	--	0.0	--	324	271
07/16/68 5050	22 C	7.3	610	2.89	2.63	1.26	.03	.07	6.63		.11	.06				328	(
1400 5050				42	39	19		1	97		2	1					
23N/13W-25P01 M	61 F	8.2	263	33	9.1	5.1	0.9	0.0	132	13	3.1	2.0	--	0.0	--	148	120
07/17/68 5050	16 C	7.3	260	1.65	.75	.22	.02		2.16	.27	.09	.03				131	12
1300 5050				63	28	8	1		85	11	4	1					
23N/13W-36P03 M	61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/16/68	16 C	6.9	255														
1230 5050																	
							LAYTONVILLE VALLEY 1-12.00										
21N/14W-30M01 M	58 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/17/68	14 C	7.0	240														
1140 5050																	
21N/15W-01L02 M	65 F	8.3	460	47	19	20	1.4	0.0	270	0.5	12	0.0	--	0.0	--	246	196
07/17/68 5050	18 C	7.6	440	2.35	1.55	.87	.04		4.43	.01	.34					232	0
1155 5050				49	32	18	1		93		7						
21N/15W-12M02 M	54.0F	7.5	56	4.7	1.3	4.9	0.7	0.0	25	1.5	3.2	0.0	--	0.0	--	50	17
07/17/68 5050	12.2C	6.1	55	.23	.11	.21	.02		.41	.03	.09					29	0
1215 5050				40	19	37	4		77	6	17						
							LITTLE LAKE VALLEY 1-13.00										
18N/13W-08L01 M	63 F	7.2	200	11	10	13	--	0.0	98	--	5.4	--	--	--	--	--	70
07/17/68 5050	17 C	6.4	200	.55	.85	.57			1.61		.15						0
1315 5050				27	42	28			80		7						
18N/13W-08L02 M	63 F	7.5	360	26	20	17	--	0.0	205	--	3.1	--	--	--	--	--	149
07/17/68 5050	17 C	6.9	385	1.30	1.68	.74			3.38		.09						0
1330 5050				36	46	20			93		2						
18N/13W-20H03 M	59 F	8.1	205	18	9.9	8.0	--	0.0	111	--	4.5	--	--	--	--	--	86
07/17/68 5050	14 C	6.6	210	.90	.82	.35			1.82		.13						0
1500 5050				43	40	17			88		6						

TABLE E-2

TRACE ELEMENT ANALYSES OF GROUND WATER

NORTH COASTAL AREA

State Well Number	Date	Constituents in parts per million						
		Al	As	Cu	Fe (Total)	Pb	Mn	Zn
SMITH RIVER PLAIN (1-1.00)								
17N-1W-2G1	7-11-68	0.12	0.00	0.00	0.00	0.00	0.00	0.00
BUTTE VALLEY (1-3.00)								
46N-1W-6P1	8-21-68		0.02					
47N-1W-23H1	8-22-68		0.04					
48N-1E-30F1	8-22-68		0.00					
48N-1E-31D3	8-22-68		0.00					
48N-1W-28F1	8-22-68		0.01					
48N-1W-28J1	8-22-68		0.02					
48N-1W-36J1	8-22-68		0.04					
SHASTA VALLEY (1-4.00)								
42N-5W-20J1	8-15-68		0.00					
42N-6W-10J1	8-15-68		0.00					
44N-5W-32C2	8-15-68		0.01					
44N-6W-22K1	8-15-68		0.00					
45N-5W-6Q41	5-25-68				0.01			
45N-6W-12G41	5-25-68				0.01			
SCOTT RIVER VALLEY (1-5.00)								
43N-9W-2G1	8-15-68		0.00					
43N-9W-24F2	8-15-68		0.00					
MAD RIVER VALLEY (1-8.00)								
5N-1E-4H4	6-26-68	0.02	0.00	0.00	0.18	0.00	0.00	0.01
6N-1E-7M1	6-24-68	0.09	0.00	0.01	14.	0.01	0.01	0.18
6N-1E-32F1	6-24-68	0.06	0.00	0.00	0.44	0.00	0.00	0.20

CONSTITUENTS

Al	Aluminum	Pb	Lead
As	Arsenic	Mu	Manganese
Cu	Copper	Zn	Zinc
Fe	Iron		